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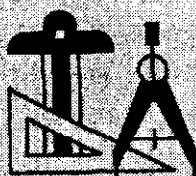
Montgomery
County, Maryland

Department of Public
Works and Transportation

101 Monroe Street
Rockville, MD 20850



Design Standards

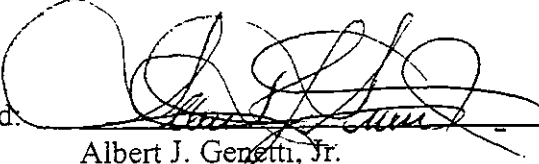


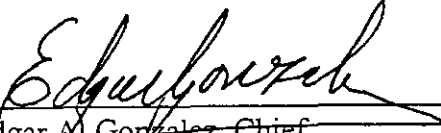
Division of
Engineering Services



BOOK OF DESIGN STANDARDS
MONTGOMERY COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION

FEBRUARY 2001

Approved:  24 Feb 2001
Date
Albert J. Genetti, Jr.
Department of Public Works and Transportation
Montgomery County, Maryland

Approved:  Feb 23/01
Date
Edgar A. Gonzalez, Chief
Division of Engineering Services
Department of Public Works and Transportation

CREDITS

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DIVISION OF ENGINEERING SERVICES

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In addition to the above credits, there have been many others who have contributed to the development of these standards. The Department of Public Works and Transportation gratefully acknowledges the contribution of its staff, both past and present, Montgomery County Department of Permitting Services, as well as the Montgomery County Road Code Committee and the Maryland-National Capital Park and Planning Commission staff.

PREFACE

This publication reflects amendments to the Montgomery County, DPWT, Design Standards that have occurred since their last date of publication (February 1996). These changes include:

- Updates to the Table of Contents and the List of Credits,
- development of six new standards for open section roadways with sidewalks, street trees and off-road bikepaths,
- amendments to two existing landscaping standards, and
- modifications to the median details for the existing standards for divided arterial and major classification roadways.



MONTGOMERY COUNTY DESIGN STANDARDS
TABLE OF CONTENTS
BY RELATION BETWEEN OLD AND CURRENT STANDARD NUMBER

Old Standard No.	Current Standard No.	Remarks
10-A	MC-100.01	
10-C	MC-101.01	
10-D	MC-102.01	
10-E	MC-103.01	
10-F	MC-104.01	
11	MC-800.01	
13-A	MC-110.01	
13-B	MC-111.01	
13-D	MC-112.01	
13-E	MC-113.01	
13-F	MC-114.01	
14	MC-700.01	
15	MC-701.01	
16	MC-702.01	
17	MC-703.01	
23-A	MC-302.01	
23-C	MC-301.01	
23-D	MC-301.03	
23-D(SUPP.)	MC-301.03	
23-E	MC-500.01	
23-F	MC-301.04	
23-G	MC-300.02	
23-H	MC-300.01	
23-I	MC-301.02	
24-A	MC-222.01	
24-B	MC-222.02	

MONTGOMERY COUNTY DESIGN STANDARDS
TABLE OF CONTENTS
BY RELATION BETWEEN OLD AND CURRENT STANDARD NUMBER

Old Standard No.	Current Standard No.	Remarks
24-C	MC-223.01	
24-D	MC-223.02	
25	MC-220.01	
25-B	MC-221.01	
25-C	MC-221.02	
27-A	MC-201.01	
27-B	MC-200.01	
44	MC-210.01 & MC-210.02	
44-A	MC-210.03	
44-B	MC-210.04	
46	MC-213.01	
47	MC-211.02	
47-A	MC-212.03	
47-B	MC-213.02	
47-C	MC-810.01	
47-D	MC-525.01	
48	MC-212.01	
49	MC-211.01	
50-A	MC-224.01	
50-B	MC-224.02	
51	MC-214.01	
52	MC-218.01	
53	MC-216.02	
54	MC-811.01	

MONTGOMERY COUNTY DESIGN STANDARDS
TABLE OF CONTENTS
BY RELATION BETWEEN OLD AND CURRENT STANDARD NUMBER

Old Standard No.	Current Standard No.	Remarks
55	MC-501.01	
55-A	MC-520.01	
55-B	MC-520.02	
56	MC-502.01	
56-A	MC-507.01	
56-B	MC-502.02	
57	MC-510.01 & MC-515.01	
58-A	MC-505.01	
58-B	MC-503.01	
58-C	MC-504.01	
59	MC-521.01 & MC-521.02	
60	MC-801.01	
60-A	MC-801.02	
60-B	MC-801.03	
61	MC-506.01	
NONE	MC-210.05	New
NONE	MC-211.03	New
NONE	MC-212.02	New
NONE	MC-212.04	New
NONE	MC-212.05	New
NONE	MC-213.03	New
NONE	MC-213.04	New
NONE	MC-214.02	New
NONE	MC-214.03	New
NONE	MC-215.01	New
NONE	MC-215.02	New

MONTGOMERY COUNTY DESIGN STANDARDS
TABLE OF CONTENTS
BY RELATION BETWEEN OLD AND CURRENT STANDARD NUMBER

Old Standard No.	Current Standard No.	Remarks
NONE	MC-216.01	New
NONE	MC-217.01	New
NONE	MC-217.02	New
NONE	MC-217.03	New
NONE	MC-217.04	New
NONE	MC-218.02	New
NONE	MC-219.01	New
NONE	MC-219.02	New
NONE	MC-219.03	New
NONE	MC-219.04	New
NONE	MC-225.01	New
NONE	MC-225.02	New
NONE	MC-225.03	New
NONE	MC-303.01	New
NONE	MC-703.02	New

COMMENTS ON STANDARD NO. _____

Comments:

MONTGOMERY COUNTY DESIGN STANDARDS

TABLE OF CONTENTS

Revised February 2001

CURRENT STANDARD NUMBER	NAME	OLD STANDARD NUMBER
SHOULDERS		

CURBS

MC-100.01	Combination Concrete Curb and Gutter - Type A	10-A
MC-101.01	Combination Concrete Curb and Gutter - Type C	10-C
MC-102.01	Depressed Curb Entrance	10-D
MC-103.01	Bituminous Concrete Curb	10-E
MC-104.01	Mountable Concrete Curb and Gutter-Type F	10-F

SIDEWALKS

MC-110.01	Residential Sidewalk - Closed Section	13-A
MC-111.01	Business District Sidewalk	13-B
MC-112.01	Residential Sidewalk Ramp	13-D
MC-113.01	Business District Sidewalk - Single Ramp	13-E
MC-113.02	Business District Sidewalk - Dual Ramp	New
MC-114.01	Median Opening	13-F

HIGHWAYS, ROADS AND STREETS

ALLEY

MC-200.01	Residential Alley	27-B
MC-201.01	Commercial Alley	27-A

TERTIARY

MC-210.01	Tertiary Residential Street - 44' Right-of-Way	44
MC-210.02	Tertiary Residential Street - 50' Right-of-Way	44
MC-210.03	Modified Tertiary Residential Street	44-A
MC-210.04	Modified Tertiary Residential Street with Parking Bays	44-B
MC-210.05	Tertiary Residential Street with Sidewalks and Street Trees	New

CURRENT STANDARD NUMBER	NAME	OLD STANDARD NUMBER
HIGHWAYS, ROADS AND STREETS (CONTINUED)		

SECONDARY

MC-211.01	Secondary Residential Road	49
MC-211.02	Secondary Residential Road - Open Section	47
MC-211.03	Secondary Residential Road - Open Section with Sidewalks and Street Trees	New

PRIMARY

MC-212.01	Primary Residential Road	48
MC-212.02	Alternative Primary Residential Road	New
MC-212.03	Primary Residential Road - Open Section	47-A
MC-212.04	Primary Residential Road - Open Section with Sidewalk, Bike Path and Street Trees	New
MC-212.05	Master Plan Primary Road - Open Section with Sidewalk, Bike Path and Street Trees	New

ARTERIAL

MC-213.01	Arterial Road	46
MC-213.02	Arterial Road - Open Section	47-B
MC-213.03	Arterial Road - 5 Lanes including Center Left Turn Lane	New
MC-213.04	Arterial Road - Open Section with Sidewalk, Bike Path and Street Trees	New

COMMERCIAL

MC-214.01	Commercial/Business District Road	51
MC-214.02	Commercial/Industrial Road - 60' Right-of-Way	New
MC-214.03	Commercial/Industrial Road - 70' Right-of-Way	New

SECONDARY DUAL

MC-215.01	Secondary Residential Dual Road - 76' Right-of-Way	New
MC-215.02	Secondary Residential Dual Road - 100' Right-of-Way	New

PRIMARY DUAL

MC-216.01	Primary Residential Dual Road - 84' Right-of-Way	New
MC-216.02	Primary Residential Dual Road - 100' Right-of-Way	53

CURRENT STANDARD NUMBER	NAME	OLD STANDARD NUMBER
HIGHWAYS, ROADS AND STREETS (CONTINUED)		

ARTERIAL DUAL

MC-217.01	Arterial Dual Road - 100' Right-of-Way	New
MC-217.02	Arterial Dual Road - 110' Right-of-Way	New
MC-217.03	Arterial Dual Road - 120' Right-of-Way	New
MC-217.04	Arterial Dual Road - Open Section with Sidewalk, Bike Path and Street Trees	New

MAJOR DUAL

MC-218.01	Major Dual Highway - 120' Right-of-Way	52
MC-218.02	Major Dual Highway - 150' Right-of-Way	New

COMMERCIAL DUAL

MC-219.01	Commercial/Industrial Dual Road - 80' Right-of-Way	New
MC-219.02	Commercial/Industrial Dual Road - 100' Right-of-Way	New
MC-219.03	Commercial/Industrial Dual Road - 112' Right-of-Way	New
MC-219.04	Commercial/Industrial Dual Road - 120' Right-of-Way	New

TRAFFIC CONTROL

MC-220.01	Residential Road Intersection - Open Section with Curb and Gutter Placement	25
MC-221.01	Traffic Control Intersection - Residential Roads	25-B
MC-221.02	Traffic Control Circle - Residential Roads	25-C

CUL-DE-SAC

MC-222.01	Cul-De-Sac - Curb and Gutter Road	24-A
MC-222.02	Cul-De-Sac - Open Section Road	24-B

TEMPORARY TURNAROUND

MC-223.01	Temporary Turnaround - Curb and Gutter Roadway	24-C
MC-223.02	Temporary Turnaround - Open Section Roadway	24-D

CURRENT STANDARD NUMBER	NAME	OLD STANDARD NUMBER
HIGHWAYS, ROADS AND STREETS (CONTINUED)		

MONUMENTAL

MC-224.01	Monumental Entrance	50-A
MC-224.02	Monumental Entrance with Accel/Decel Lanes	50-B

TRANSIT

MC-225.01	Edge Transit Way - 150' Right-of-Way	New
MC-225.02	Median Transit Way - 150' Right-of-Way	New
MC-225.03	Exclusive Transit Way - 70' Right-of-Way	New

DRIVEWAYS

MC-300.01	Tertiary Driveway	23-H
MC-300.02	Tertiary Driveway With Mountable Curb	23-G
MC-301.01	Residential Driveway	23-C
MC-301.02	Residential Driveway With Mountable Curb	23-I
MC-301.03	Residential Driveway - Open Section Road	23-D
MC-301.04	Residential Driveway - Limited Width	23-F
MC-301.05	Residential Driveway	23-B
MC-301.06	Residential Driveway - Brick Paver	23-BP
MC-302.01	Commercial Driveway	23-A
MC-303.01	Methods Of Transitioning Driveways	(New)

DRAINAGE

MC-500.01	Driveway Endwall - Open Section Road	23-E
MC-501.01	A-Inlet	55
MC-502.01	B-Inlet	56
MC-502.02	Reverse B-Inlet	56-B
MC-503.01	D-Inlet	58-B
MC-504.01	E-Inlet	58-C
MC-505.01	E-4 Inlet	58-A
MC-506.01	J-Inlet	61
MC-506.02	J-Inlet As A Terminus	(New)
MC-507.01	Precast Inlet Guidelines	56-A
MC-510.01	A-Manhole	57
MC-515.01	B-Manhole	57
MC-520.01	Manhole And Inlet Steps	55-A
MC-520.02	Manhole And Inlet Steps In Channels	55-B
MC-521.01	Cutoff Wall With Concrete Outfall	59
MC-521.02	Cutoff Wall With Riprap Outfall	59
MC-525.01	Subgrade Drains - Open Section Roadways	47-D

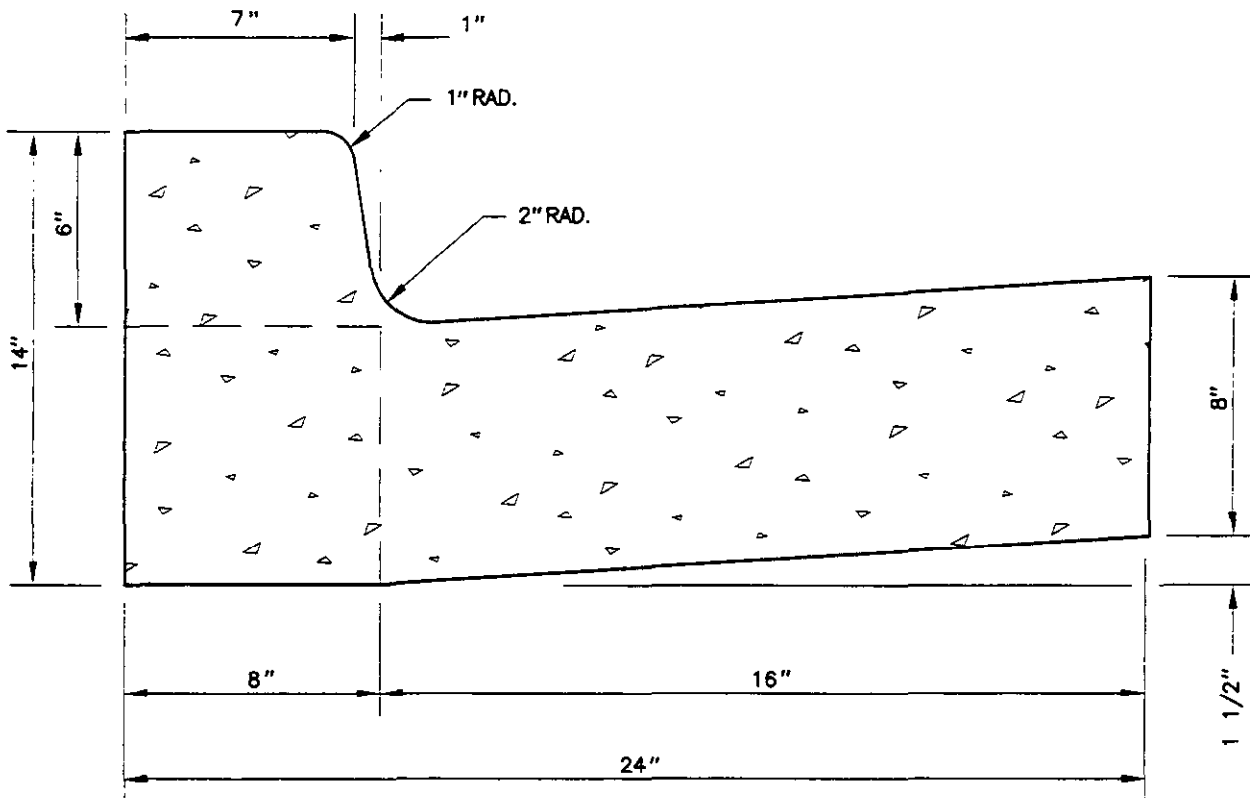
CURRENT STANDARD NUMBER	NAME	OLD STANDARD NUMBER
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LANDSCAPING

MC-700.01	Tree Locations - Closed Section Roads	14
MC-701.01	Tree Locations - Open Section Roads	15
MC-702.01	Tree Planting Detail	16
MC-703.01	Approved Tree Variety List	17
MC-703.02	Approved Tree Species List	New

MISCELLANEOUS

MC-800.01	Barricade Post	11
MC-801.01	Utility Patch in Rigid Pavement	60
MC-801.02	Utility Patch in Flexible Pavement	60-A
MC-801.03	Utility Patch for Appurtenance Adjustment	60-B
MC-810.01	Swale Section	47-C
MC-811.01	Methods of Grading Side Slopes	54



GENERAL NOTES

1. REFER TO MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR MATERIALS, METHODS OF CONSTRUCTION AND EXPANSION JOINT LOCATIONS.
2. THIS STANDARD SHALL BE USED ON PRIMARY RESIDENTIAL, ARTERIAL AND BUSINESS DISTRICT ROADS AS WELL AS CURB RETURNS AND INLET THROATS.
3. WHENEVER STANDARD MC-101.01 CURB IS USED IN CONJUNCTION WITH THIS STANDARD, A TEN FOOT TRANSITION SHALL BE PROVIDED FROM STANDARD MC-100.01 TO STANDARD MC-101.01 FOR CURB RETURNS AND CURB SECTIONS WHICH INCLUDE INLETS.
4. THE STANDARD DISTANCE BETWEEN JOINTS SHALL BE TEN FEET (MAXIMUM AND MINIMUM DISTANCES SHALL BE THIRTEEN FEET AND FIVE FEET RESPECTIVELY).
5. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH FS TT-S-00227.

APPROVED JAN 5/96
DATE

Edgar M. Jones
DIRECTOR, DEPT. OF TRANS.

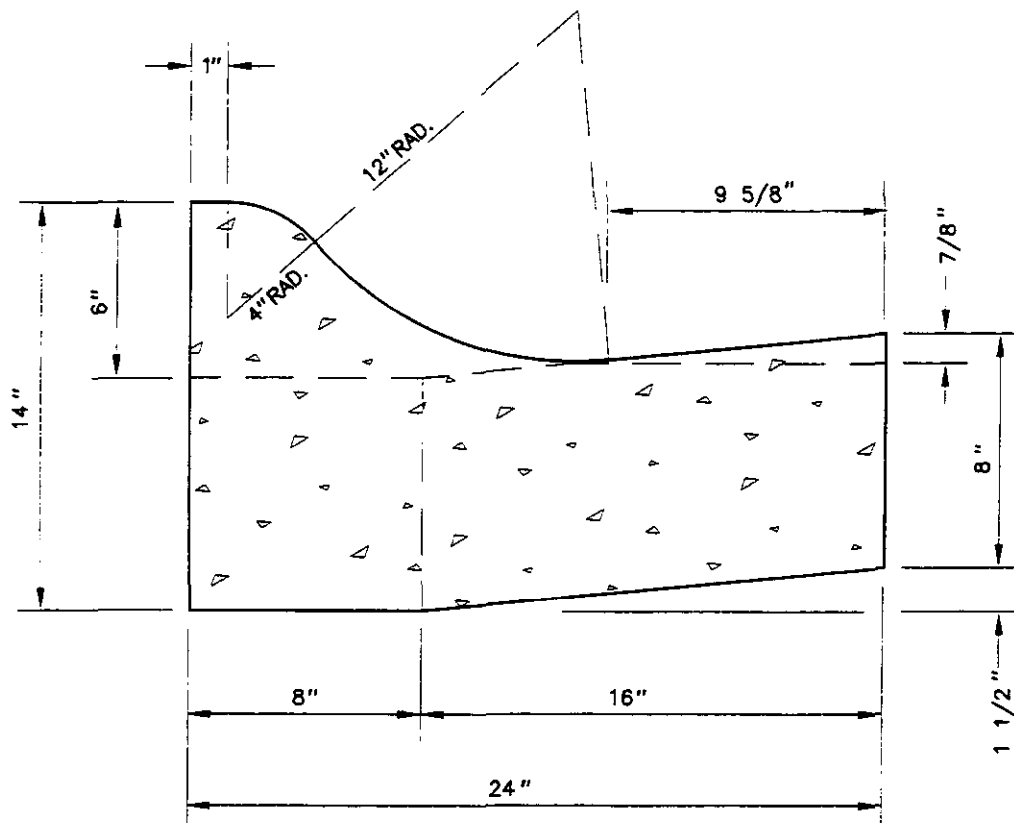
Edgar M. Jones
CHIEF, DIV. ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

COMBINATION CONCRETE
CURB AND GUTTER
TYPE A

STANDARD NO. MC-100.01



GENERAL NOTES

1. REFER TO MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR MATERIALS, METHODS OF CONSTRUCTION AND EXPANSION JOINT LOCATIONS.
2. THIS STANDARD SHALL BE USED ON PRIMARY, SECONDARY AND TERTIARY RESIDENTIAL ROADS EXCEPT AT CURB RETURNS AND INLET THROATS.
3. WHENEVER STANDARD MC-100.01 CURB IS USED IN CONJUNCTION WITH THIS STANDARD, A TEN FOOT TRANSITION SHALL BE PROVIDED FROM STANDARD MC-101.01 TO STANDARD MC-100.01 FOR CURB RETURNS AND CURB SECTIONS WHICH INCLUDE INLETS.
4. THE STANDARD DISTANCE BETWEEN JOINTS SHALL BE TEN FEET (MAXIMUM AND MINIMUM DISTANCES SHALL BE THIRTEEN FEET AND FIVE FEET RESPECTIVELY).
5. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH FS TT-S-00227.

APPROVED JAN 5/96
DATE

Edgar M. ...
DIRECTOR, DEPT. OF TRANS.

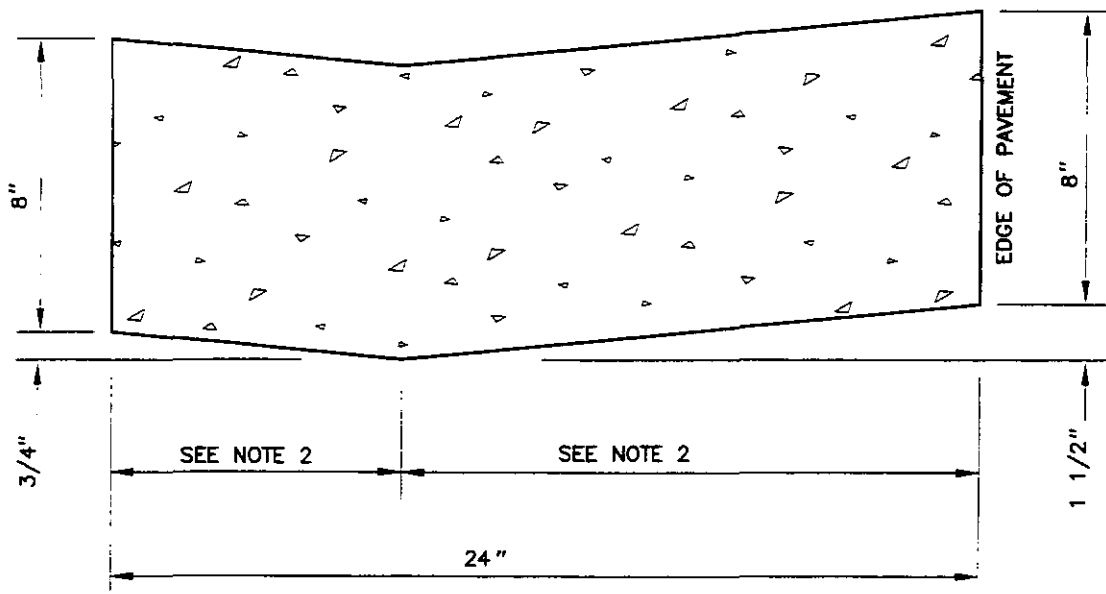
Edgar M. ...
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

COMBINATION CONCRETE
CURB AND GUTTER
TYPE C

STANDARD NO. MC-101.01



GENERAL NOTES

1. REFER TO MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR MATERIALS, METHODS OF CONSTRUCTION AND EXPANSION JOINT LOCATIONS.
2. THE DISTANCES FROM THE FLOWLINE TO THE FRONT AND BACK EDGE OF CURB SHALL BE ADJUSTED TO MATCH EXISTING CONDITIONS.
3. THE STANDARD DISTANCE BETWEEN JOINTS SHALL BE TEN FEET (MAXIMUM AND MINIMUM DISTANCES SHALL BE THIRTEEN FEET AND FIVE FEET RESPECTIVELY).
4. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH FS TT-S-00227.

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APPROVED JAN 5/96
DATE

[Signature]
DIRECTOR, DEPT. OF TRANS.

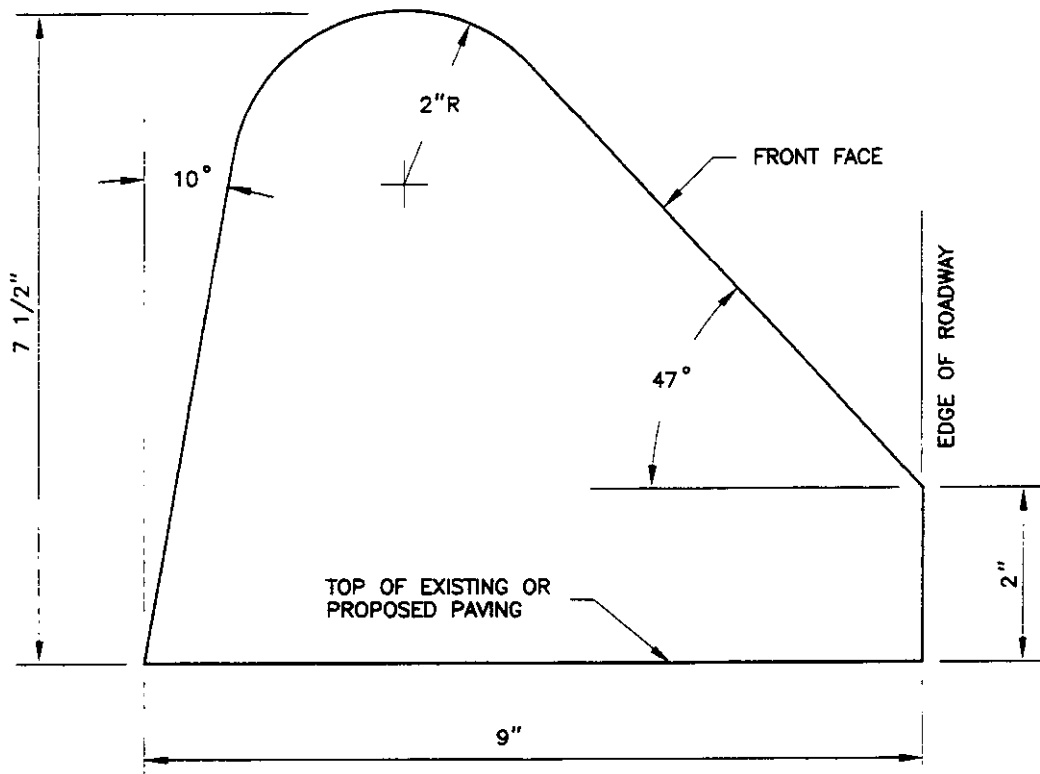
[Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

DEPRESSED CURB ENTRANCE

STANDARD NO. MC-102.01



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. CURB TO BE MARYLAND STATE HIGHWAY ADMINISTRATION TYPE SN OR BF BITUMINOUS CONCRETE.
3. THIS STANDARD IS INTENDED TO BE USED IN TEMPORARY SITUATIONS ONLY.
4. BACK OF CURB TO BE LOCATED 6 INCHES MINIMUM INSIDE EDGE OF PAVING.
5. APPLY TACK COAT WHEN PLACED ON EXISTING PAVEMENT.

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APPROVED JAN 5 / 95
DATE

Edmund M. Carter
DIRECTOR, DEPT. OF TRANS.

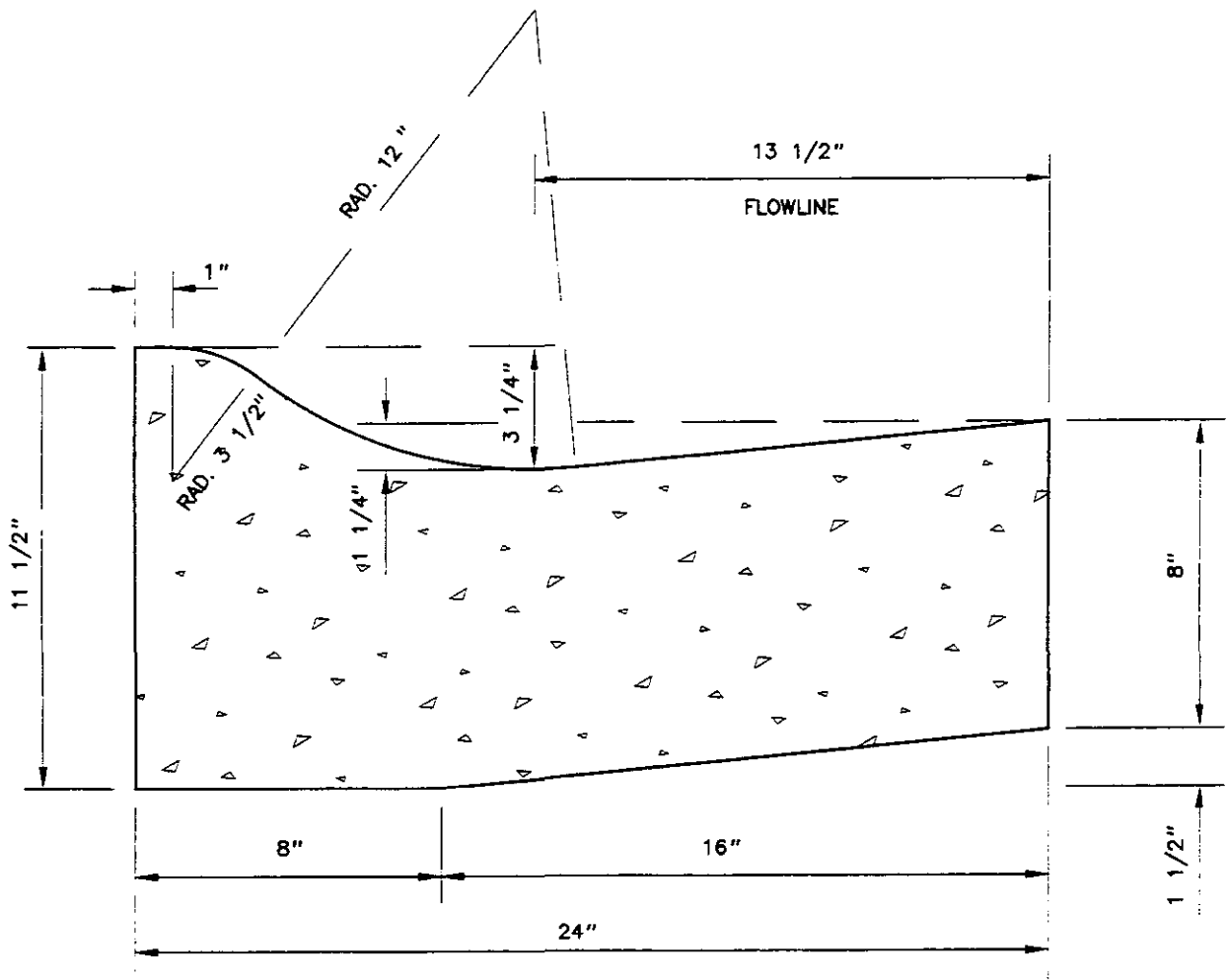
Edmund M. Carter
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

BITUMINOUS CONCRETE CURB

STANDARD NO. MC-103.01



GENERAL NOTES

1. REFER TO MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR MATERIALS, METHODS OF CONSTRUCTION, AND EXPANSION JOINT LOCATIONS.
2. MOUNTABLE CURB SHALL ONLY BE USED ON TERTIARY STREETS OR ON SECONDARY RESIDENTIAL CUL-DE-SACS 500 FEET OR LESS IN LENGTH, MEASURED FROM THE LAST INTERSECTING STREET.
3. WHENEVER STANDARD MC-100.01 IS USED IN CONJUNCTION WITH THIS STANDARD, A TEN FOOT TRANSITION SHALL BE PROVIDED FROM STANDARD MC-104.01 TO STANDARD MC-100.01 FOR CURB RETURNS AND CURB SECTIONS WHICH INCLUDE INLETS.
4. TRANSITION BETWEEN STANDARD MC-104.01 AND MC-100.01 OR MC-101.01 SHALL BE ACCOMPLISHED HOLDING THE FLOW LINE SLOPE CONSTANT.
5. THE STANDARD DISTANCE BETWEEN JOINTS SHALL BE TEN FEET (MAXIMUM AND MINIMUM DISTANCES SHALL BE THIRTEEN FEET AND FIVE FEET RESPECTIVELY).
6. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH FS TT-S-00227.

APPROVED JAN 5/96
DATE

Edgar Fournelle
DIRECTOR, DEPT. OF TRANS.

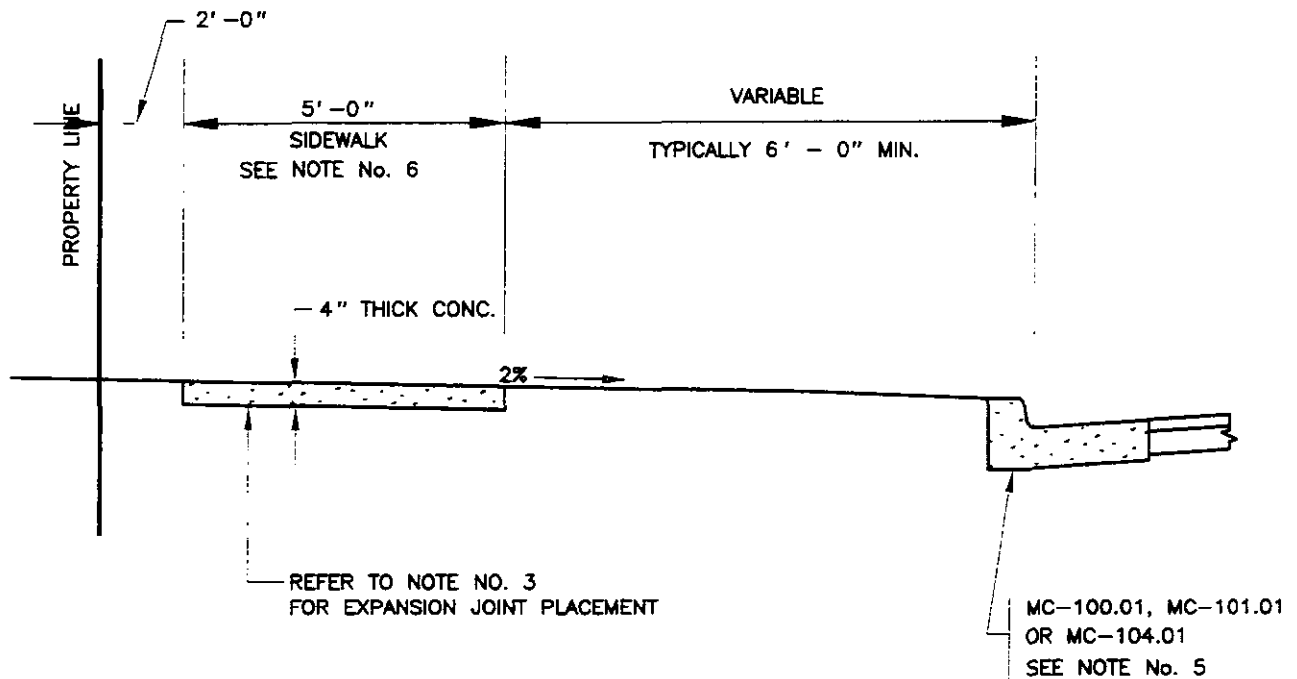
Edgar Fournelle
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

MOUNTABLE CONCRETE
CURB AND GUTTER
TYPE F

STANDARD NO. MC-104.01



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. REFER TO THE APPLICABLE MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS FOR DETAILS AT DRIVEWAYS.
3. EXPANSION JOINTS SHALL HAVE A MAXIMUM SPACING OF 100 FEET AND BE LOCATED AT POINTS OF CURVATURE. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH FS TT-S-00227.
4. SCORE THE CONCRETE TO A DEPTH OF 1/3 THE SLAB THICKNESS TO PROVIDE WEAKENED PLANE TRANSVERSE JOINTS AT 5'-0" INTERVALS.
5. REFER TO THE APPLICABLE ROAD STANDARD AND CURB AND GUTTER STANDARDS FOR OTHER OPTIONS.
6. SIDEWALK WIDTH SHALL BE 4'-0" FOR SECONDARY AND TERTIARY ROADWAYS.

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APPROVED JAN 5/96
DATE

Frederick M. Nelson
DIRECTOR, DEPT. OF TRANS.

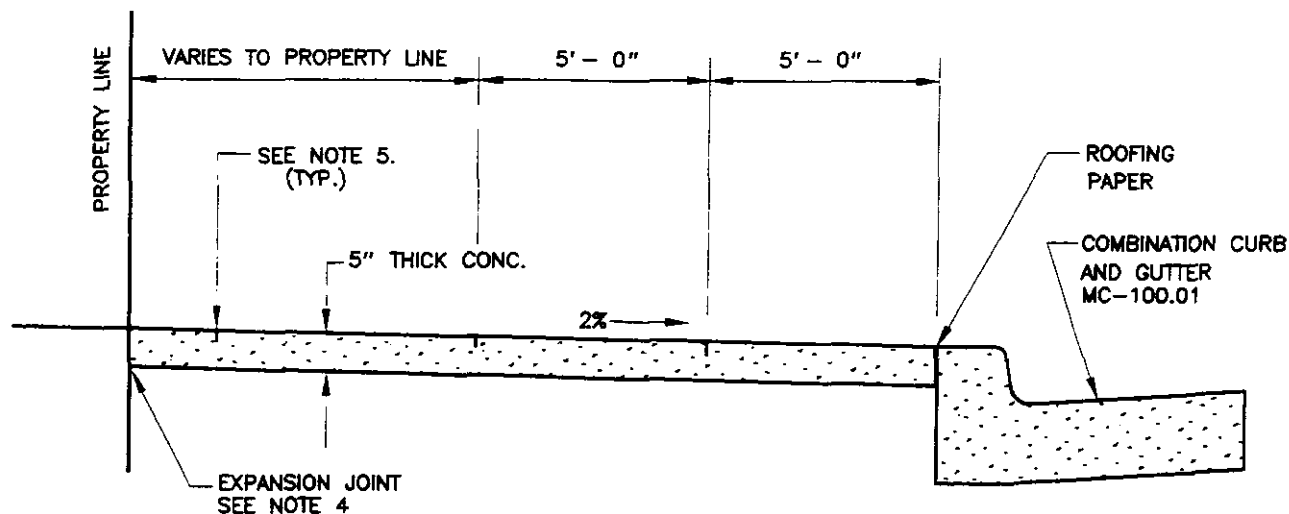
Edgar J. Housh
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

RESIDENTIAL SIDEWALK
CLOSED SECTION

STANDARD NO. MC-110.01

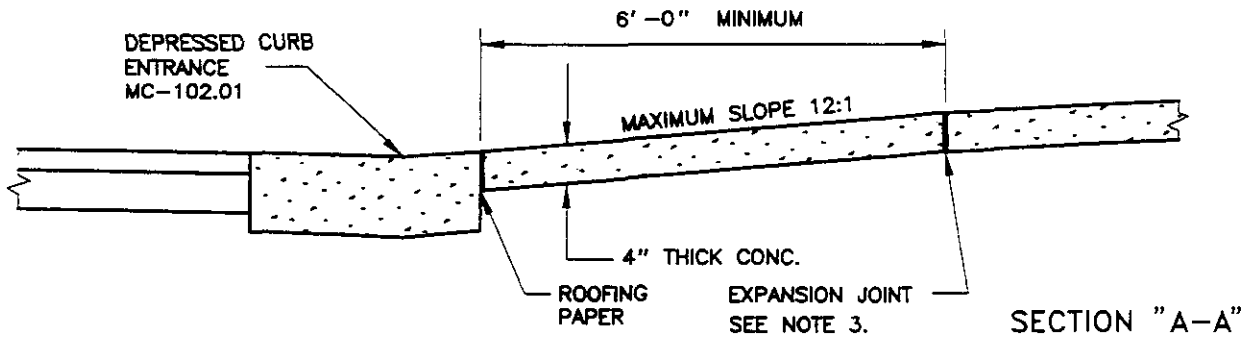
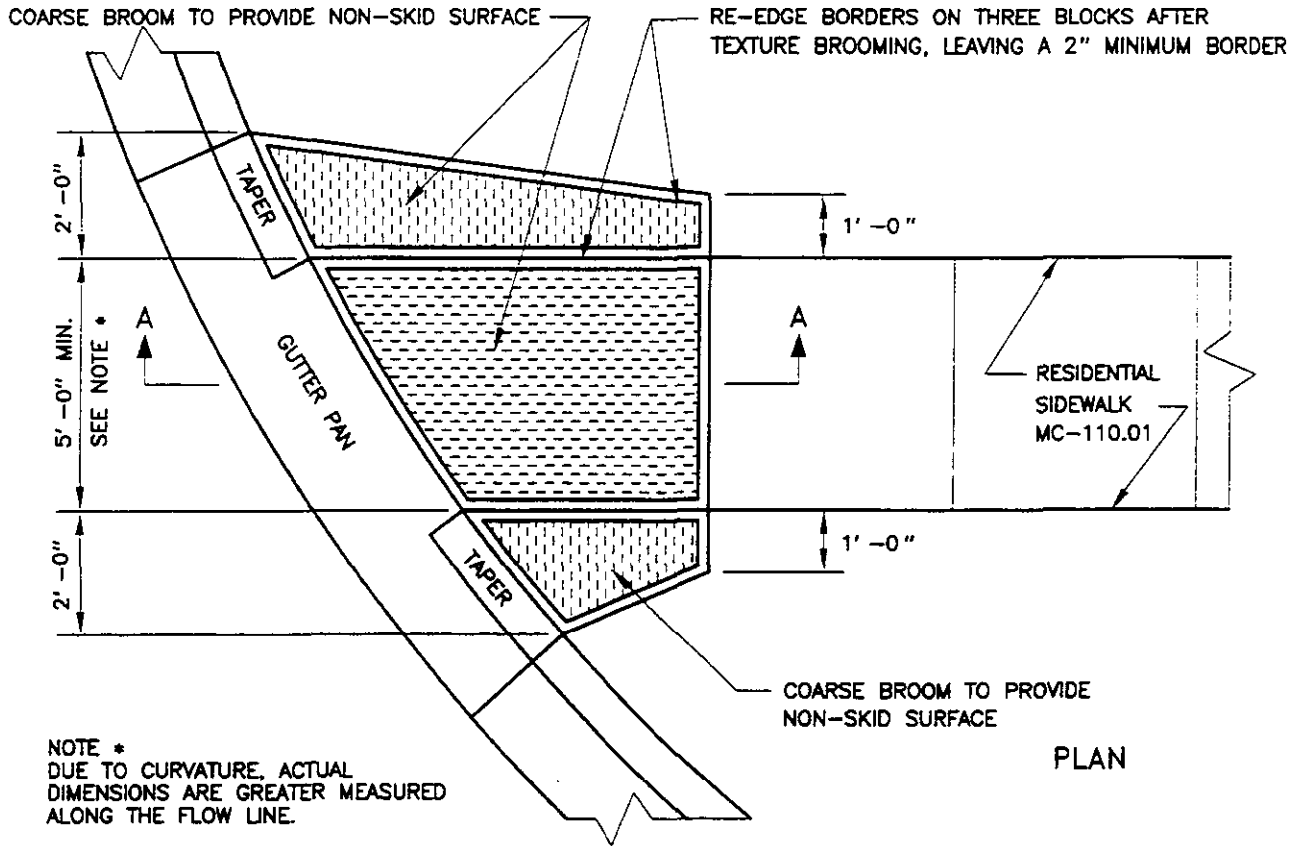


GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. REFER TO MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DESIGN STANDARD No. MC-302.01 FOR DETAILS AT A DRIVEWAY.
3. EXPANSION JOINT MATERIAL SHALL BE PLACED AROUND POLES, HYDRANTS, ETC. AND ALONG THE PROPERTY LINE WHEN THE SIDEWALK ABUTS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE.
4. EXPANSION JOINT MATERIAL SHALL HAVE A MAXIMUM LONGITUDINAL SPACING OF 100 FEET. THE MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH FS TT-S-00227.
5. SCORE THE CONCRETE TO A DEPTH OF 1/3 THE SLAB THICKNESS TO PROVIDE WEAKENED PLANE TRANSVERSE JOINTS AT 5' - 0" INTERVALS PARALLEL WITH AND PERPENDICULAR TO THE CURBING.

P:\DOT\STANDARD\1101 6-24-94 7:04:44 am EST

APPROVED <u>JAN 5/96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>Isahay Martin</i> DIRECTOR, DEPT. OF TRANS.		BUSINESS DISTRICT SIDEWALK
<i>Edgar Fox</i> CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-111.01



GENERAL NOTES

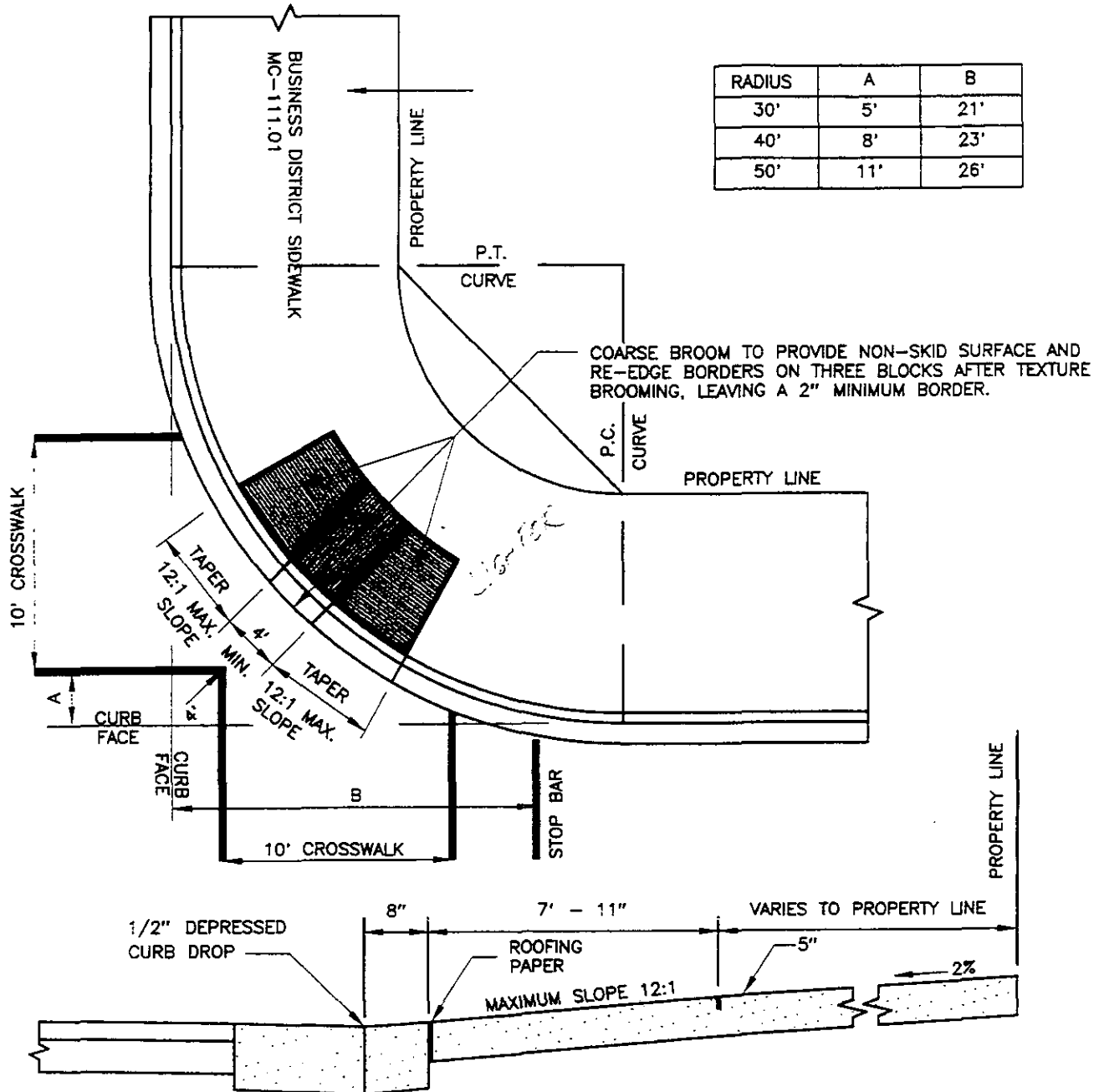
MATERIALS

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SIDEWALK RAMPS SHOULD BE LOCATED AS INDICATED. HOWEVER, EXISTING SURFACE UTILITIES AND EXISTING OR PROPOSED GEOMETRICS MAY AFFECT PLACEMENT.
3. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT, COMPLYING WITH FS TT-S-00227.

P:\DOT\STBY\MC11201 6-24-94 7:07:19 am EST

APPROVED <u>JAN 5 / 96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>Isley Mota</i> DIRECTOR, DEPT. OF TRANS.		RESIDENTIAL SIDEWALK RAMP
<i>Edgar J. Borch</i> CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-112.01

RADIUS	A	B
30'	5'	21'
40'	8'	23'
50'	11'	26'



GENERAL NOTES

MATERIALS

1. THIS STANDARD TO BE USED WITH CURB RADIUS OF 30' OR GREATER.
2. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
3. SIDEWALK RAMPS SHOULD BE LOCATED AS INDICATED, HOWEVER, EXISTING SURFACE UTILITIES MAY AFFECT PLACEMENT.
4. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT, COMPLYING WITH FS TT-S-00227.

APPROVED JAN 5 / 96
DATE

Edgar M. [Signature]
DIRECTOR, DEPT. OF TRANS.

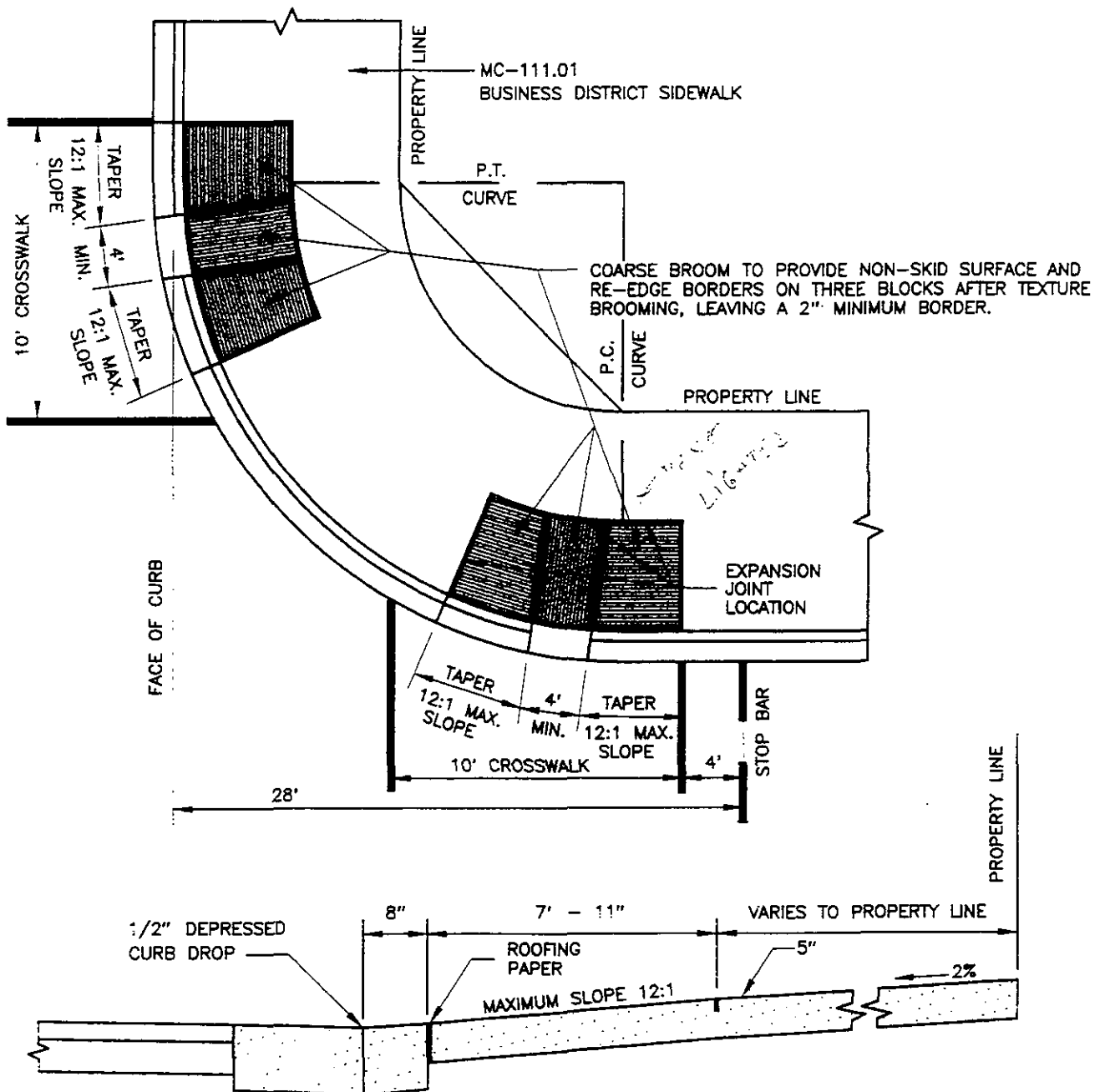
Edgar [Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

BUSINESS DISTRICT SIDEWALK
SINGLE RAMP

STANDARD NO. MC-113.01



GENERAL NOTES

1. THIS STANDARD TO BE USED WITH CURB RADIUS LESS THAN 30'.
2. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
3. SIDEWALK RAMPS SHOULD BE LOCATED AS INDICATED, HOWEVER, EXISTING SURFACE UTILITIES MAY AFFECT PLACEMENT.
4. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT, COMPLYING WITH FS TT-S-00227.

P:\DOT\STD\NC11301 6-24-94 7:09:50 am EST

APPROVED JAN 5/96
DATE

Lesley M. Mader
DIRECTOR, DEPT. OF TRANS.

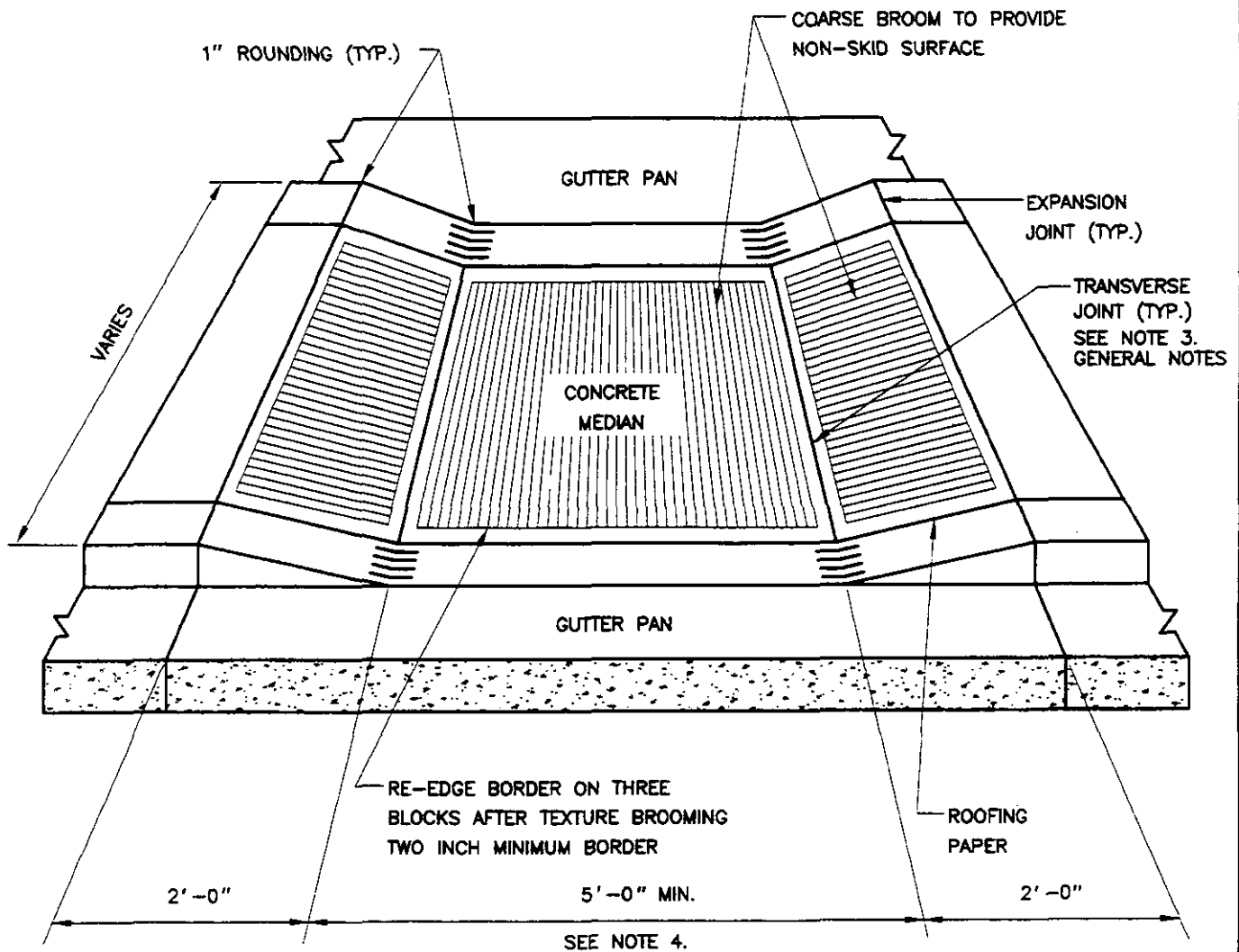
Edgelmeyer
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

BUSINESS DISTRICT SIDEWALK
DUAL RAMP

STANDARD NO. MC-113.02



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED, AND SEALED WITH NON-STAINING, TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH FS TT-S-00227.
3. SCORE THE CONCRETE FOR THE TRANSVERSE JOINTS TO A DEPTH OF 1/3 OF THE THICKNESS TO PROVIDE A WEAKENED PLANE.
4. THE WIDTH MAY BE INCREASED TO MATCH THE WIDTH OF AN APPROACHING BIKEWAY.

APPROVED JAN 5/ 96
DATE

Frederick M. Weber
DIRECTOR, DEPT. OF TRANS.

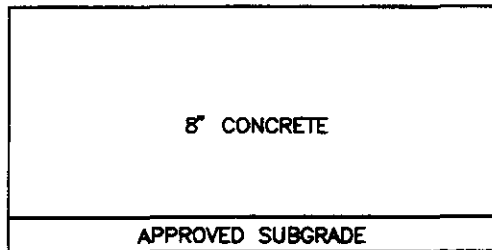
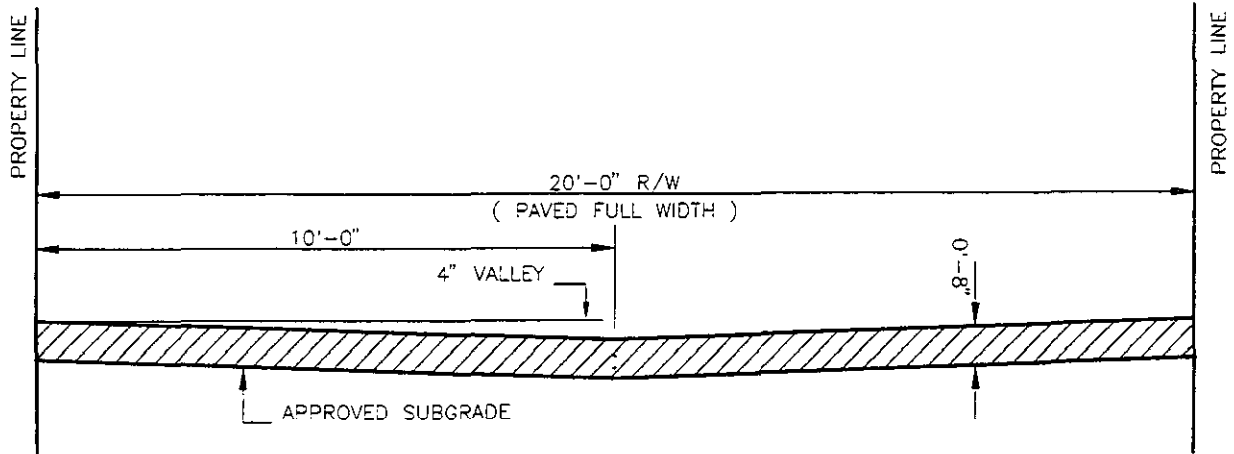
Edgar J. Fox
CHIEF, DIV. OF ENG. SERVICES

REVISED

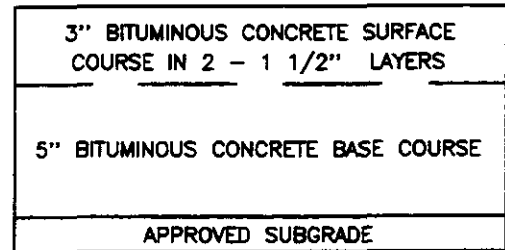
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

MEDIAN OPENING

STANDARD NO. MC-114.01



PRIMARY PAVING



ALTERNATE PAVING

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. EXPANSION JOINT MATERIAL SHALL BE PLACED ALONG THE PROPERTY LINE WHEN ABUTTING CONCRETE STRUCTURES.
3. EXPANSION JOINT MATERIAL SHALL HAVE A MAXIMUM LONGITUDINAL SPACING OF 100 FEET. THE MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH FS TT-S-00227.
4. SCORE THE CONCRETE TO A DEPTH OF 1/3 THE SLAB THICKNESS TO PROVIDE WEAKENED PLANE TRANSVERSE JOINTS AT 10'-0" MAXIMUM INTERVALS.

APPROVED JAN 5/96
DATE

[Signature]
DIRECTOR, DEPT. OF TRANS.

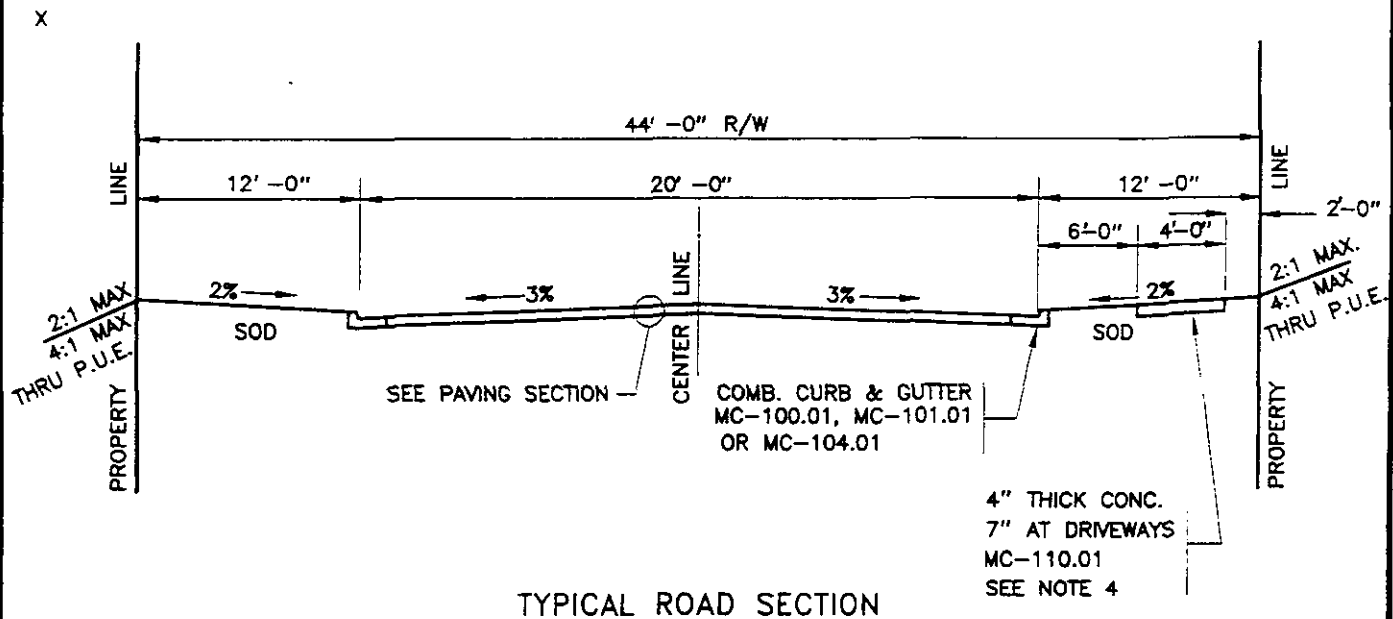
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CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

COMMERCIAL ALLEY

STANDARD NO. MC-201.01



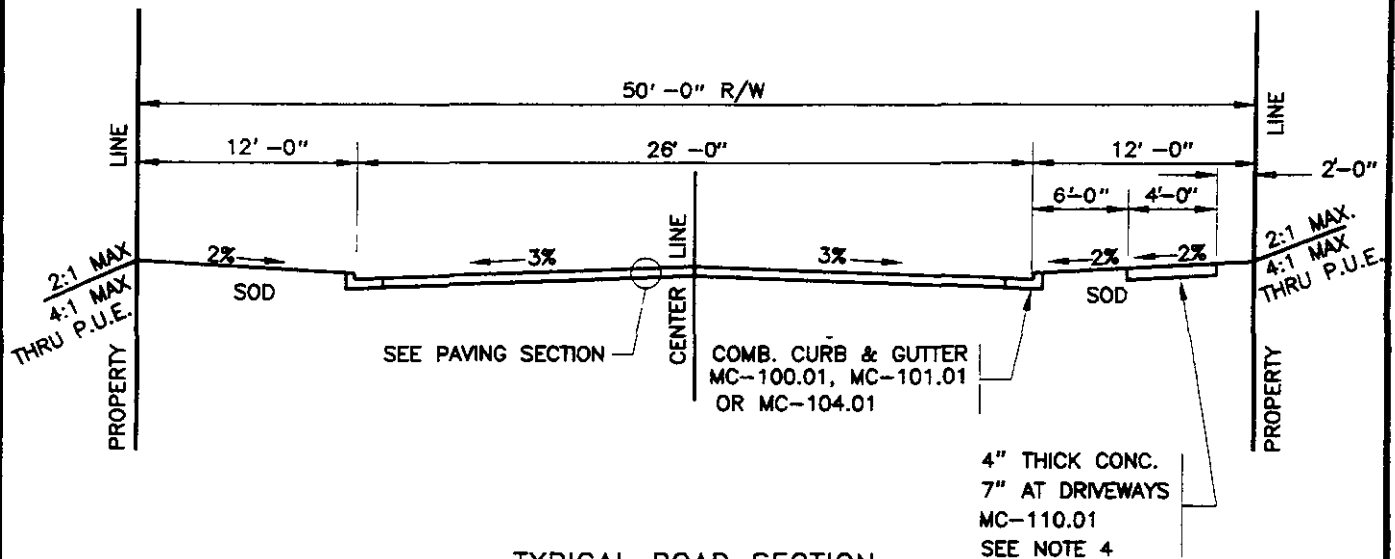
3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
3" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

PAVING SECTION GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. TOP OF CURB ELEVATION = CENTERLINE ELEVATION + 0.11' (FOR 6" CURB HEIGHT).
4. THIS STANDARD CAN BE USED FOR CUL-DE-SAC LESS THAN 300' IN LENGTH AND WITH ON STREET PARKING ALLOWED ON ONE SIDE ONLY.
5. THIS STANDARD CAN BE USED FOR ONE WAY LOOP STREETS WITH ON STREET PARKING ALLOWED ON ONE SIDE ONLY.
6. SIDEWALK OBSTRUCTIONS THAT VIOLATE THE CLEARANCE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
7. THIS STANDARD SHALL NOT BE USED WHERE ANY CLASS OF BIKEWAY IS SPECIFIED.
8. WHEN A TRAFFIC BARRIER IS WARRANTED INCREASE THE RIGHT OF WAY TO ALLOW THE TRAFFIC BARRIER TO BE PLACED OUTSIDE OF THE SIDEWALK.

P:\DOTSTD\MCE1001 9-28-95 2:10:19 PM EST

APPROVED	JAN 5/96 DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
 DIRECTOR, DEPT. OF TRANS.			TERTIARY RESIDENTIAL STREET 44' RIGHT-OF-WAY
 CHIEF DIV. OF ENG. SERVICES			STANDARD NO. MC-210.01



TYPICAL ROAD SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
3" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. TOP OF CURB ELEVATION = CENTERLINE ELEVATION + 0.02' (FOR 6" CURB HEIGHT).
4. SIDEWALK SHALL BE REQUIRED ON ONE SIDE ONLY FOR STREETS LONGER THAN 300'.
5. WHEN A TRAFFIC BARRIER IS WARRANTED INCREASE THE RIGHT OF WAY TO ALLOW THE TRAFFIC BARRIER TO BE PLACED OUTSIDE OF THE SIDEWALK.

APPROVED JAN 5/96
DATE

[Signature]
DIRECTOR, DEPT. OF TRANS.

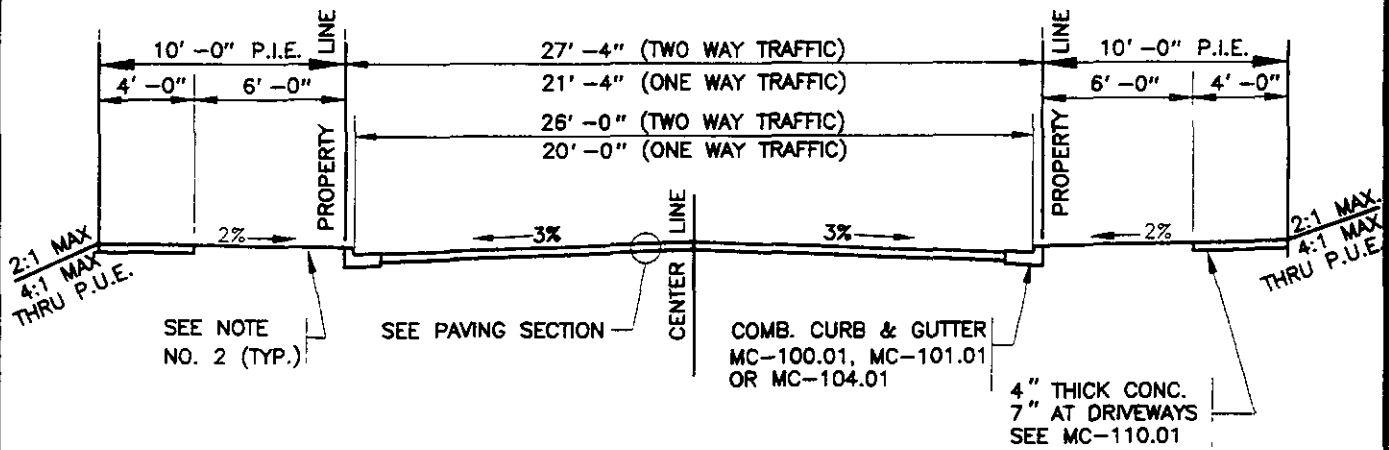
[Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

TERTIARY RESIDENTIAL STREET
50' RIGHT-OF-WAY

STANDARD NO. MC-210.02



TYPICAL ROAD SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2-1 1/2" LAYERS
3" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

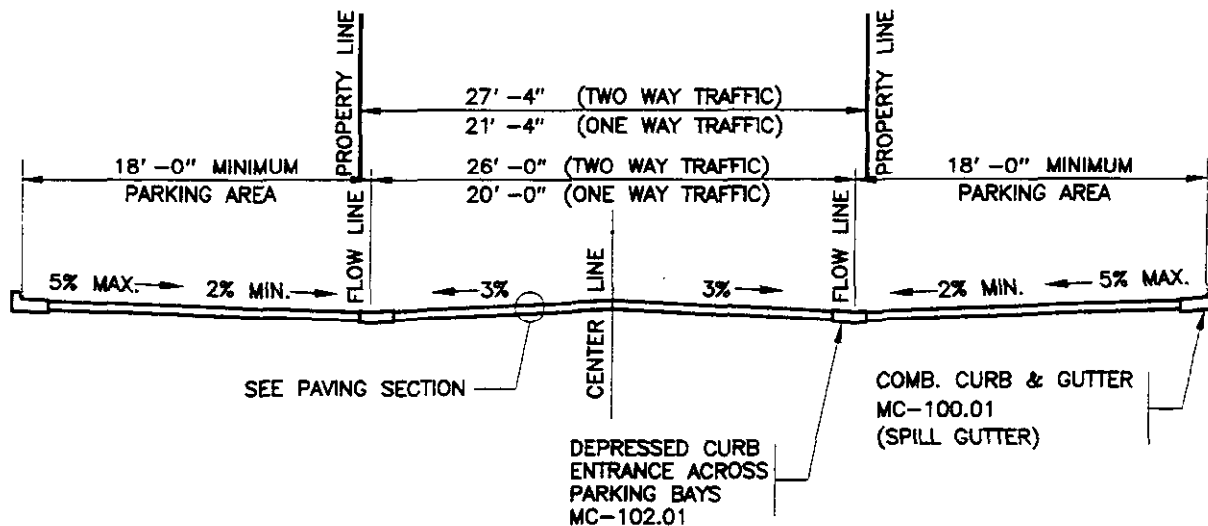
PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. THE SLOPE BEHIND THE CURB TOWARD THE ROAD SHALL BE 2% FOR A DISTANCE OF 3' - 0" FROM THE FACE OF CURB.
3. SURFACE AREA OF INLET SLABS SHALL REMAIN ENTIRELY EXPOSED.
4. TOP OF CURB ELEVATION (20' PAVEMENT) = CENTERLINE ELEVATION + 0.11' (FOR 6" CURB HEIGHT)
5. TOP OF CURB ELEVATION (26' PAVEMENT) = CENTERLINE ELEVATION + 0.02' (FOR 6" CURB HEIGHT)

P:\DDTSTD\NC21003 7-1-94 110800 am EST

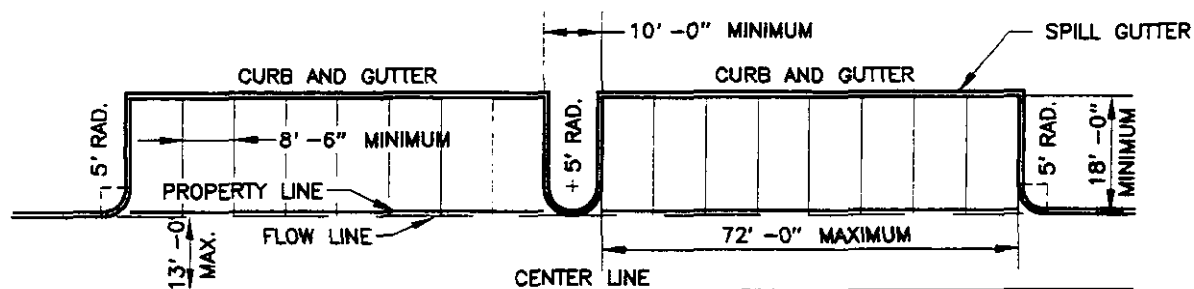
APPROVED <u>JAN 5/98</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>Lesley M. Mader</i> DIRECTOR, DEPT. OF TRANS.		MODIFIED TERTIARY RESIDENTIAL STREET
<i>Edgar J. Fournelle</i> CHIEF, DEPT. OF ENG. SERVICES		STANDARD NO. MC-210.03



TYPICAL ROAD SECTION
THROUGH PARKING BAYS

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
3" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

PAVING SECTION



PLAN VIEW

NOTE: PARKING BAYS TO BE
MAINTAINED BY OTHERS.

PA100TSTDNMC21004 7-1-94 11:09:33 am EST

APPROVED

JAN 5/ 96
DATE

Edgar A. [Signature]
DIRECTOR, DEPT. OF TRANS.

Edgar A. [Signature]
CHIEF, DIV. OF ENG. SERVICES

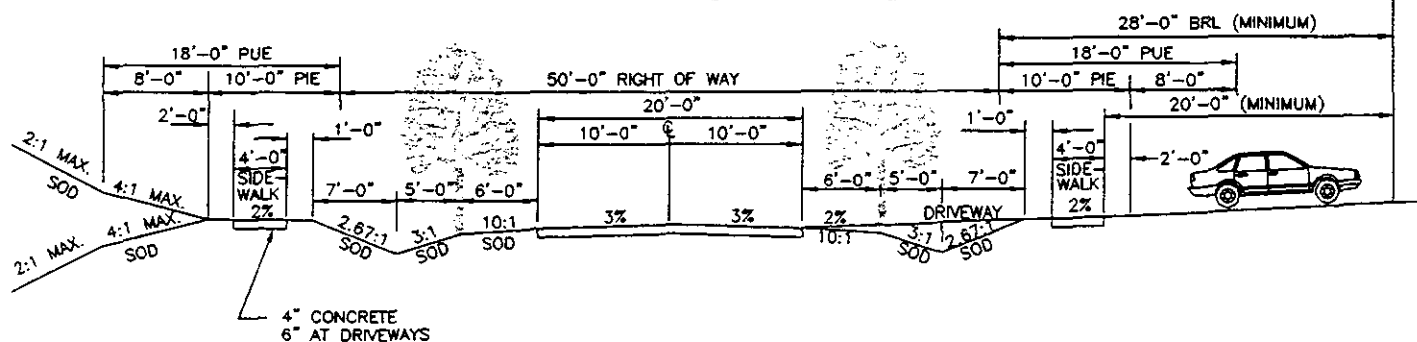
REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

TERTIARY RESIDENTIAL STREET
WITH PARKING BAYS

STANDARD NO. MC-210.04

TYPICAL ROAD SECTION



PAVING SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
3" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. PUBLIC UTILITY EASEMENTS (PUEs) ARE SUBJECT TO THE TERMS AND CONDITIONS OF A DOCUMENT ENTITLED "DECLARATIONS OF TERMS AND PROVISIONS OF PUBLIC UTILITY EASEMENTS" THAT IS RECORDED IN THE LAND RECORDS OF MONTGOMERY COUNTY IN LIBER 3834 AT FOLIO 457.
4. THE SIDE DITCH IN FILL SLOPES MAY BE ELIMINATED IN AREAS NOT MASTER PLANNED FOR DEVELOPMENT ONLY AFTER OVERLAND FLOW PATH AND EROSION POTENTIAL ARE CONSIDERED.
5. SEE STANDARDS NO. MC-701.01 AND MC-703.02 FOR SPECIES, SIZE AND SPACING OF STREET TREES.
6. WHEN USING THIS STANDARD, THE GARAGE SHALL BE SET BACK A MINIMUM DISTANCE OF 20 FEET, MEASURED FROM THE BACK EDGE OF THE SIDEWALK. THE MINIMUM BUILDING RESTRICTION LINE SETBACK IS 28 FEET.
7. STREET LIGHTING POLES ARE TO BE LOCATED AS DIRECTED BY THE MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.
8. PUBLIC IMPROVEMENTS EASEMENTS (PIEs) ARE TO BE GRANTED BY A SITE SPECIFIC DECLARATION OF PUBLIC IMPROVEMENTS EASEMENT DOCUMENT. THAT DOCUMENT IS TO BE RECORDED IN THE LAND RECORDS OF MONTGOMERY COUNTY, MARYLAND AND REFERENCED ON THE RECORD PLAT.
9. THE 2-FOOT WIDE SECTION OF THE PIEs BEHIND THE SIDEWALKS IS TO ALLOW FOR THE TEMPORARY CONSTRUCTION, RECONSTRUCTION, AND MAINTENANCE OF THE SIDEWALKS. NO PERMANENT PUBLIC IMPROVEMENTS ARE TO BE PLACED WITHIN THESE 2-FOOT WIDE STRIPS.
10. SEVERAL OF THE DIMENSIONS SPECIFIED ON THIS STANDARD REFLECT MODIFICATIONS TO THE VALUES SHOWN ON STANDARD NO. MC-301.03 (RESIDENTIAL DRIVEWAY/OPEN SECTION ROAD).
11. ELEVATION AT THE FRONT EDGE OF SIDEWALK = EDGE OF PAVEMENT ELEVATION + 0.38'

APPROVED 11 July 2000
DATE

DIRECTOR, DPWT

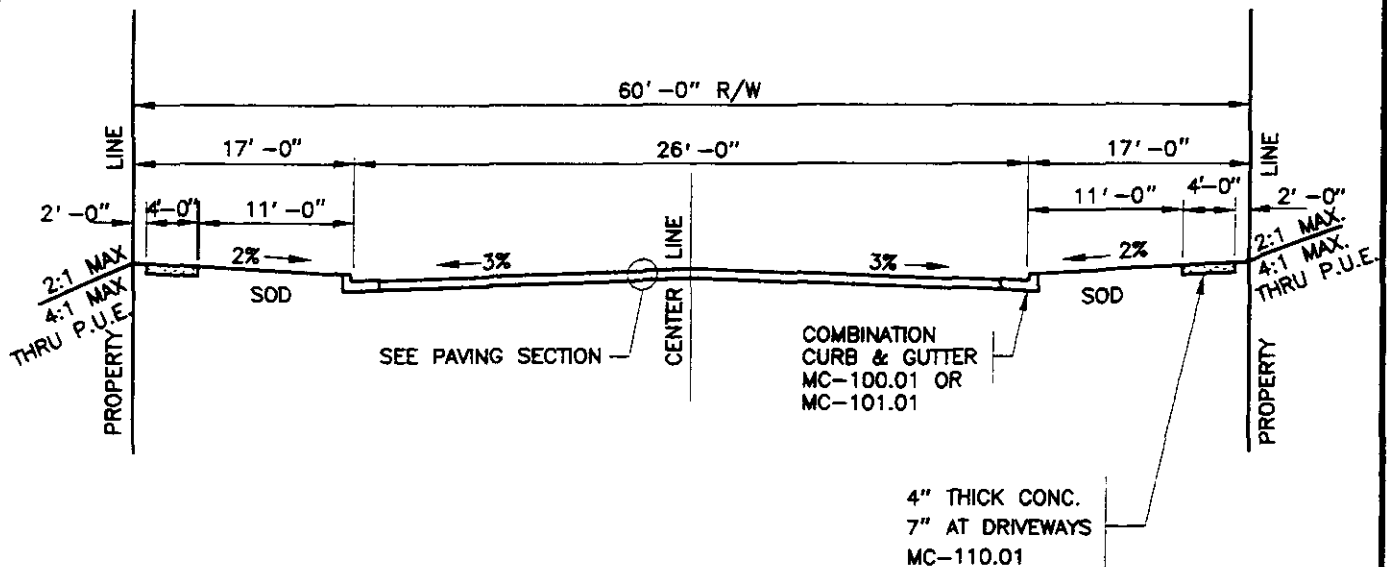
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY DEPARTMENT
OF PUBLIC WORKS AND TRANSPORTATION

TERTIARY RESIDENTIAL STREET
OPEN SECTION
WITH SIDEWALKS AND STREET TREES

STANDARD NO. MC-210.05



TYPICAL ROAD SECTION

3" BITUMINOUS CONCRETE SURFACE
COURSE IN 2 - 1 1/2" LAYERS

3" BITUMINOUS CONCRETE BASE
COURSE

APPROVED SUBGRADE

PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. TOP OF CURB ELEVATION = CENTERLINE ELEVATION +0.02' (FOR 6" CURB HEIGHT).
4. WHEN A TRAFFIC BARRIER IS WARRANTED HOLD A MINIMUM OF 7'-0" GREEN SPACE BETWEEN THE CURB AND THE SIDEWALK.

P:\DOTSTD\MC2101 6-24-94 7:54:33 am EST

APPROVED JAN 5 / 96
DATE

Leah A. Dooker
DIRECTOR, DEPT. OF TRANS.

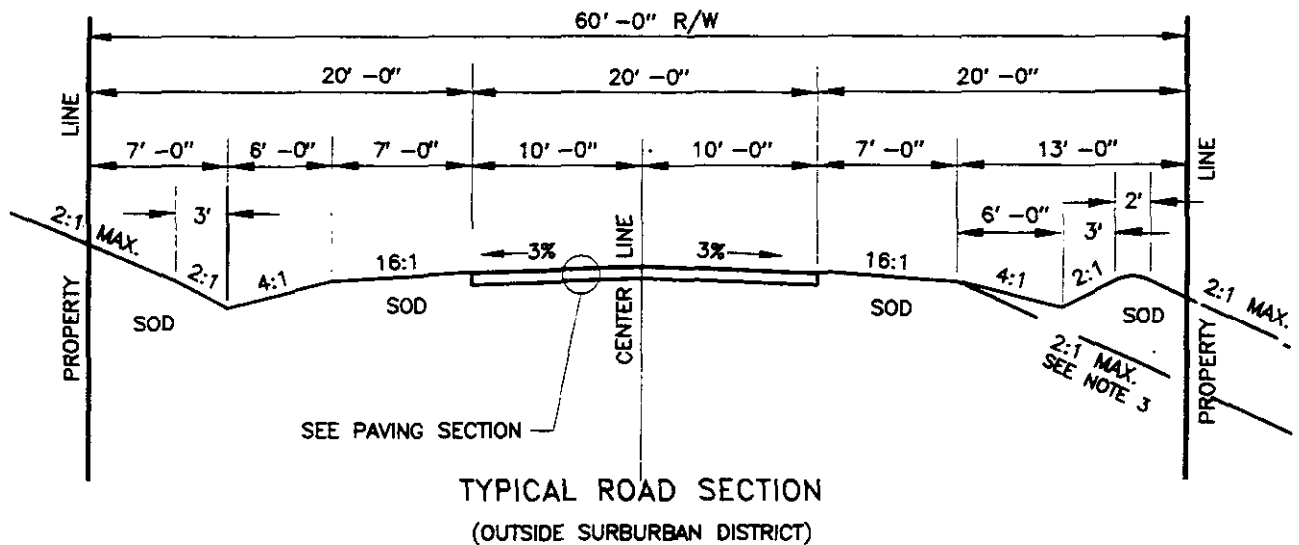
Edgar J. Pouch
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

SECONDARY RESIDENTIAL ROAD

STANDARD NO. MC-211.01



3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
3" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

PAVING SECTION

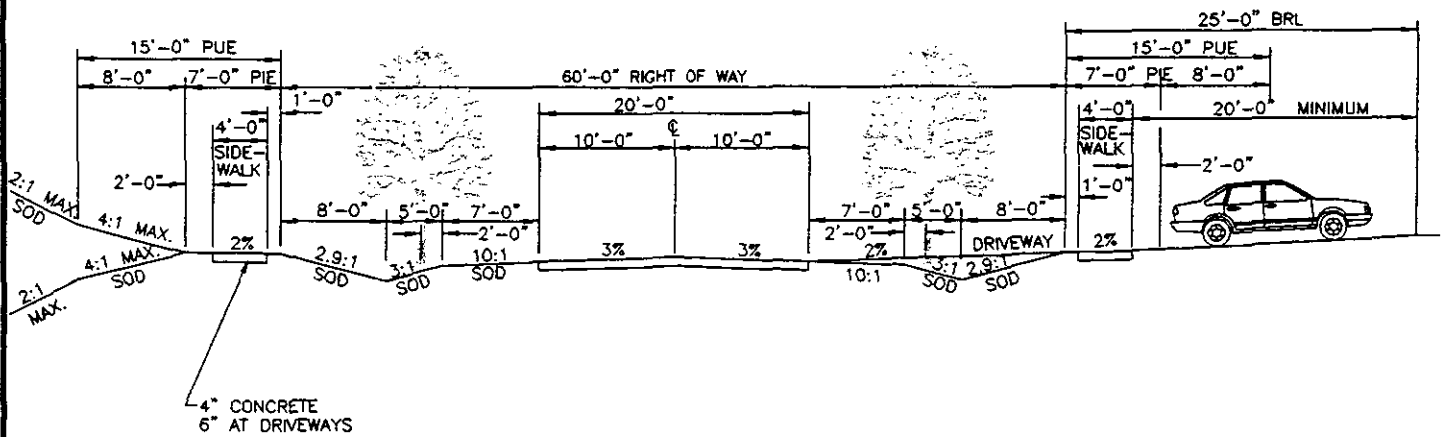
GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. THE SIDE DITCH IN FILL SLOPES MAY BE ELIMINATED IN AREAS NOT MASTER PLANNED FOR DEVELOPMENT ONLY AFTER OVERLAND FLOW PATH AND EROSION POTENTIAL ARE CONSIDERED.

P:\DOTSTD\MCE2102 6-24-94 75632 am EST

APPROVED <u>JAN 5/96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>[Signature]</i> DIRECTOR, DEPT. OF TRANS.		SECONDARY RESIDENTIAL ROAD OPEN SECTION
<i>[Signature]</i> CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-211.02

TYPICAL ROAD SECTION



PAVING SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
3" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. PUBLIC UTILITY EASEMENTS (PUEs) ARE SUBJECT TO THE TERMS AND CONDITIONS OF A DOCUMENT ENTITLED "DECLARATIONS OF TERMS AND PROVISIONS OF PUBLIC UTILITY EASEMENTS" THAT IS RECORDED IN THE LAND RECORDS OF MONTGOMERY COUNTY IN LIBER 3834 AT FOLIO 457.
4. THE SIDE DITCH IN FILL SLOPES MAY BE ELIMINATED IN AREAS NOT MASTER PLANNED FOR DEVELOPMENT ONLY AFTER OVERLAND FLOW PATH AND EROSION POTENTIAL ARE CONSIDERED.
5. SEE STANDARDS NO. MC-701.01 AND MC-703.02 FOR SPECIES, SIZE AND SPACING OF STREET TREES.
6. WHEN USING THIS STANDARD, THE GARAGE SHALL BE SET BACK A MINIMUM DISTANCE OF 20 FEET, MEASURED FROM THE BACK EDGE OF THE SIDEWALK. THE MINIMUM BUILDING RESTRICTION LINE SETBACK IS 25 FEET.
7. STREET LIGHTING POLES ARE TO BE LOCATED AS DIRECTED BY THE MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.
8. PUBLIC IMPROVEMENTS EASEMENTS (PIEs) ARE TO BE GRANTED BY A SITE SPECIFIC DECLARATION OF PUBLIC IMPROVEMENTS EASEMENT DOCUMENT. THAT DOCUMENT IS TO BE RECORDED IN THE LAND RECORDS OF MONTGOMERY COUNTY, MARYLAND AND REFERENCED ON THE RECORD PLAT.
9. THE 2-FOOT WIDE SECTION OF THE PIEs BEHIND THE SIDEWALKS IS TO ALLOW FOR THE TEMPORARY CONSTRUCTION, RECONSTRUCTION, AND MAINTENANCE OF THE SIDEWALKS. NO PERMANENT PUBLIC IMPROVEMENTS ARE TO BE PLACED WITHIN THESE 2-FOOT WIDE STRIPS.
10. SEVERAL OF THE DIMENSIONS SPECIFIED ON THIS STANDARD REFLECT MODIFICATIONS TO THE VALUES SHOWN ON STANDARD NO. MC-301.03 (RESIDENTIAL DRIVEWAY/OPEN SECTION ROAD).
11. ELEVATION AT THE FRONT EDGE OF SIDEWALK = EDGE OF PAVEMENT ELEVATION + 0.42'

APPROVED

11 JUL 2000
DATE

REVISED

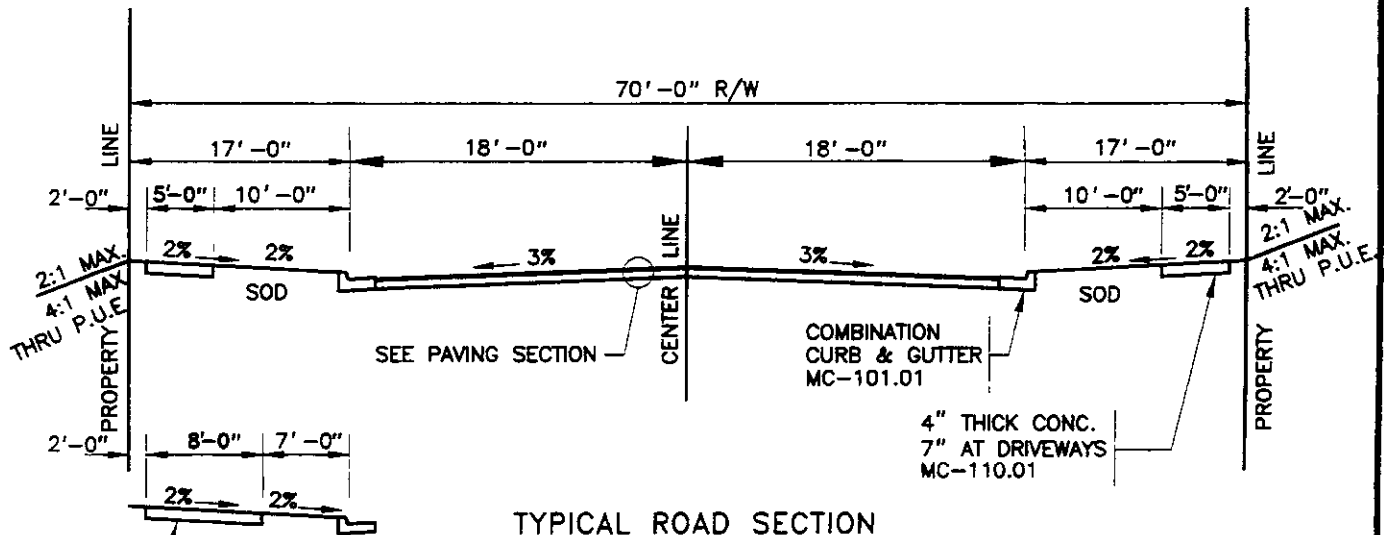
MONTGOMERY COUNTY DEPARTMENT
OF PUBLIC WORKS AND TRANSPORTATION

SECONDARY RESIDENTIAL ROAD
OPEN SECTION
WITH SIDEWALKS AND STREET TREES

STANDARD NO. MC-211.03

DIRECTOR, DPWT

CHIEF, DIV. OF ENG. SERVICES



TYPICAL ROAD SECTION

BIKE PATH OPTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
5" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

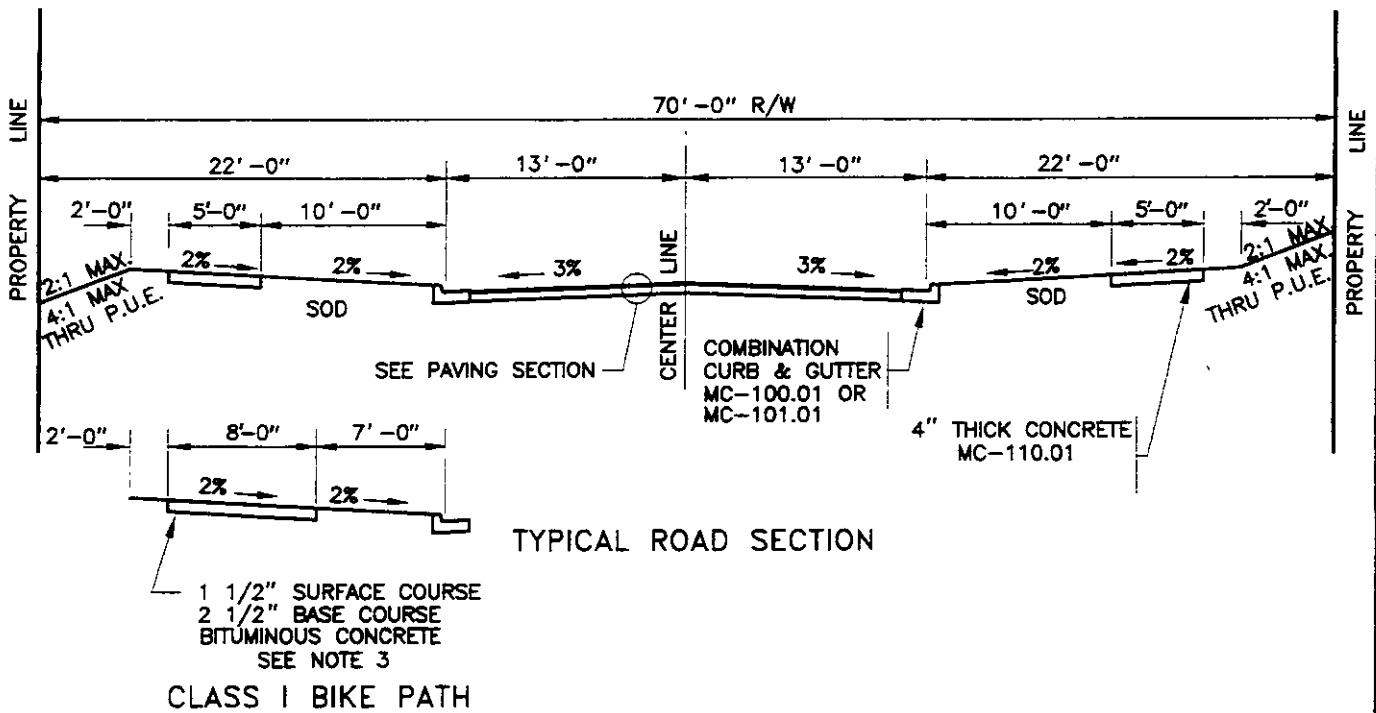
PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. TOP OF CURB ELEVATION = CENTERLINE ELEVATION -0.13' (FOR 6" CURB HEIGHT) .
4. BIKE PATH SHALL BE REQUIRED ONLY IF SPECIFIED IN MASTER PLAN.
5. WHEN A TRAFFIC BARRIER IS WARRANTED HOLD A MINIMUM OF 7'-0" GREEN SPACE BETWEEN THE CURB AND THE SIDEWALK.

P:\DOTSTD\MC21201 6-24-94 7:58:37 am EST

APPROVED <u>JAN 5 / 96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>Leslie M. Davis</i> DIRECTOR, DEPT. OF TRANS.		PRIMARY RESIDENTIAL ROAD
<i>Edgar J. Powell</i> CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-212.01



3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
5" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. A CLASS I BIKE PATH SHALL BE PROVIDED IF REQUIRED AS A RESULT OF THE DEVELOPMENT REVIEW PROCESS. WHERE A CLASS III BIKE ROUTE IS SPECIFIED, CONSIDERATION SHALL BE GIVEN TO ADDITIONAL PAVEMENT WIDTH (DESIRABLE 2' IN EACH DIRECTION, R.O.W. = 70'). THIS STANDARD SHALL NOT BE USED WHERE A CLASS II BIKE ROUTE IS SPECIFIED.
4. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
5. THIS STANDARD IS USED TO REDUCE THE IMPACT TO ADJACENT AREAS, IN LIEU OF USING THE "PRIMARY RESIDENTIAL ROAD" STANDARD, AS DETERMINED AT THE PRELIMINARY PLAN STAGE, WITH PRIOR APPROVAL OF M.C.D.O.T.
6. THIS STANDARD IS TO BE USED ONLY IN AREAS WHERE THERE ARE NO DRIVEWAYS, AND ON-STREET PARKING IS NOT NEEDED.
7. TOP OF CURB ELEVATION = CENTERLINE ELEVATION + 0.02' (FOR 6" CURB HEIGHT) .

APPROVED JAN 5/96
DATE

[Signature]
DIRECTOR, DEPT. OF TRANS.

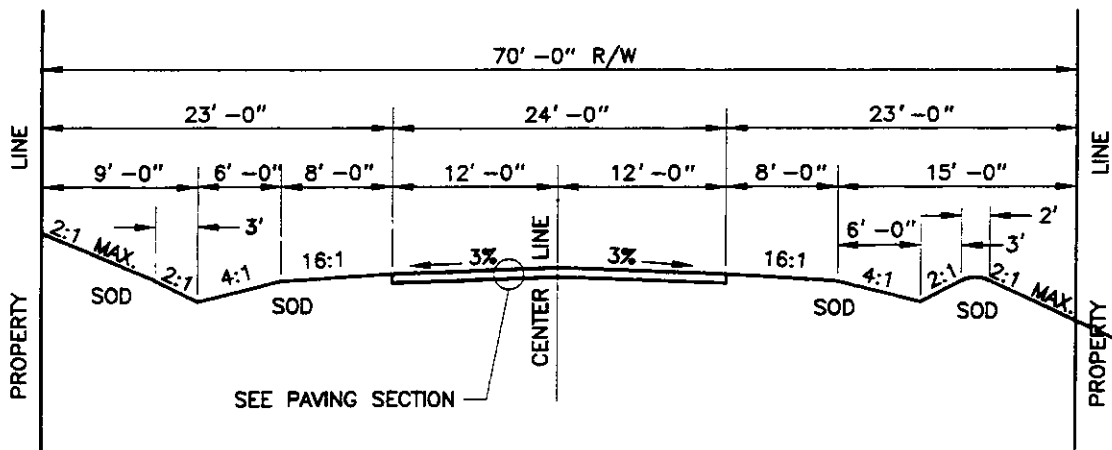
[Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

ALTERNATIVE PRIMARY
RESIDENTIAL ROAD

STANDARD NO. MC-212.02



TYPICAL ROAD SECTION
(OUTSIDE SUBURBAN DISTRICT)

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
5" BITUMUNOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

PAVING SECTION

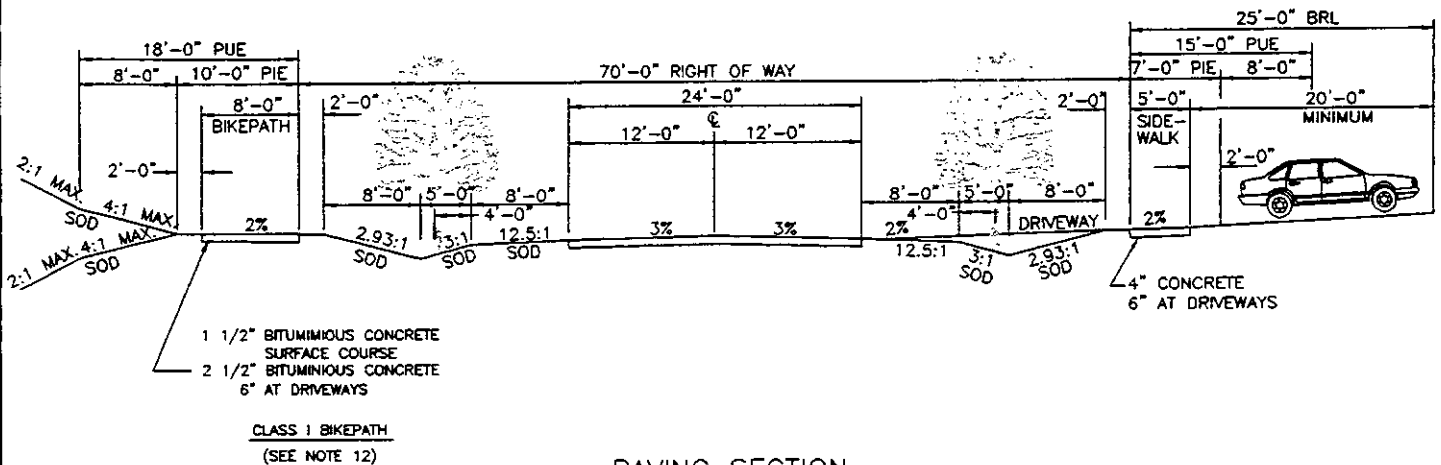
GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. THE SIDE DITCH IN FILL SLOPES MAY BE ELIMINATED IN AREAS NOT MASTER PLANNED FOR DEVELOPMENT ONLY AFTER OVERLAND FLOW PATH AND EROSION POTENTIAL ARE CONSIDERED.
4. WHEN SUBGRADE DRAINS ARE REQUIRED, THEY SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD NO. MC-525.01.

P:\DOT\STANDARD\203 6-24-94 80318 am EST

APPROVED <u>JAN 5 / 96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>[Signature]</i> DIRECTOR, DEPT. OF TRANS.		PRIMARY RESIDENTIAL ROAD OPEN SECTION
<i>[Signature]</i> CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-212.03

TYPICAL ROAD SECTION



PAVING SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
5" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. PUBLIC UTILITY EASEMENTS (PUEs) ARE SUBJECT TO THE TERMS AND CONDITIONS OF A DOCUMENT ENTITLED "DECLARATIONS OF TERMS AND PROVISIONS OF PUBLIC UTILITY EASEMENTS" THAT IS RECORDED IN THE LAND RECORDS OF MONTGOMERY COUNTY IN LIBER 3834 AT FOLIO 457.
4. THE SIDE DITCH IN FILL SLOPES MAY BE ELIMINATED IN AREAS NOT MASTER PLANNED FOR DEVELOPMENT ONLY AFTER OVERLAND FLOW PATH AND EROSION POTENTIAL ARE CONSIDERED.
5. SEE STANDARDS NO. MC-701.01 AND MC-703.02 FOR SPECIES, SIZE AND SPACING OF STREET TREES.
6. WHEN USING THIS STANDARD, THE GARAGE SHALL BE SET BACK A MINIMUM DISTANCE OF 20 FEET, MEASURED FROM THE BACK EDGE OF THE SIDEWALK (OR BIKEPATH, AS APPROPRIATE). THE MINIMUM BUILDING RESTRICTION LINE SETBACK IS 25 FEET.
7. STREET LIGHTING POLES ARE TO BE LOCATED AS DIRECTED BY THE MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.
8. PUBLIC IMPROVEMENTS EASEMENTS (PIEs) ARE TO BE GRANTED BY A SITE SPECIFIC DECLARATION OF PUBLIC IMPROVEMENTS EASEMENT DOCUMENT. THAT DOCUMENT IS TO BE RECORDED IN THE LAND RECORDS OF MONTGOMERY COUNTY, MARYLAND AND REFERENCED ON THE RECORD PLAT.
9. THE 2-FOOT WIDE SECTION OF THE PIEs BEHIND THE SIDEWALKS IS TO ALLOW FOR THE TEMPORARY CONSTRUCTION, RECONSTRUCTION, AND MAINTENANCE OF THE SIDEWALKS. NO PERMANENT PUBLIC IMPROVEMENTS ARE TO BE PLACED WITHIN THESE 2-FOOT WIDE STRIPS.
10. SEVERAL OF THE DIMENSIONS SPECIFIED ON THIS STANDARD REFLECT MODIFICATIONS TO THE VALUES SHOWN ON STANDARD NO. MC-301.03 (RESIDENTIAL DRIVEWAY/OPEN SECTION ROAD).
11. ELEVATION AT THE FRONT EDGE OF SIDEWALK = EDGE OF PAVEMENT ELEVATION + 0.46'
12. BIKEPATH WILL BE REQUIRED ONLY IF SPECIFIED IN THE MASTER PLAN OR IF INCLUDED AS A CONDITION OF SUBDIVISION APPROVAL.

APPROVED 11 July 2003

[Signature]
DATE

DIRECTOR, DPWT

[Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY DEPARTMENT
OF PUBLIC WORKS AND TRANSPORTATION

PRIMARY RESIDENTIAL ROAD
OPEN SECTION WITH SIDEWALK,
BIKEPATH AND STREET TREES

STANDARD NO. MC-212.04

TYPICAL ROAD SECTION

The diagram illustrates a cross-section of a road with the following components and dimensions:

- Left Side (from left to right):**
 - 22'-0" PUE (Public Use Easement)
 - 10'-0" wide area
 - 2'-0" wide area
 - 12'-0" PUE
 - 8'-0" wide area
 - BIKEPATH 2%
 - 2'-0" wide area
 - 8'-0" wide area
 - 5'-0" wide area
- Right Side (from right to left):**
 - 19'-0" PUE
 - 10'-0" wide area
 - 9'-0" PUE
 - 2'-0" wide area
 - 5'-0" wide area
 - 8'-0" wide area
 - 5'-0" wide area
 - 2% slope
 - 5'-0" wide area
 - 8'-0" wide area
 - 1'-0" wide area
 - 5'-0" wide area
- Center Section:**
 - 10'-0" wide area
 - 24'-0" wide area (divided into two 12'-0" lanes)
 - 10'-0" wide area
- Slopes and Grades:**
 - Left side slopes: 2:1 MAX. SOD, 4:1 MAX. SOD, 2:1 MAX. SOD.
 - Right side slopes: 2:1 MAX. SOD, 4:1 MAX. SOD, 2:1 MAX. SOD.
 - Center section grades: 12.5:1 SOD, 3%, 3%, 12.5:1 SOD.
 - Other slopes: 2.98:1 SOD, 3.5:1 SOD.
- Barriers:**
 - ROOT BARRIER (indicated by a line pointing to the barrier location)
- Legend:**
 - 1 1/2" BITUMINOUS SURFACE CONCRETE
 - 2 1/2" BITUMINOUS CONCRETE BASE COURSE
 - 6" AT DRIVEWAYS
 - 4" CONCRETE
 - 6" AT DRIVEWAYS

PAVING SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
5" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

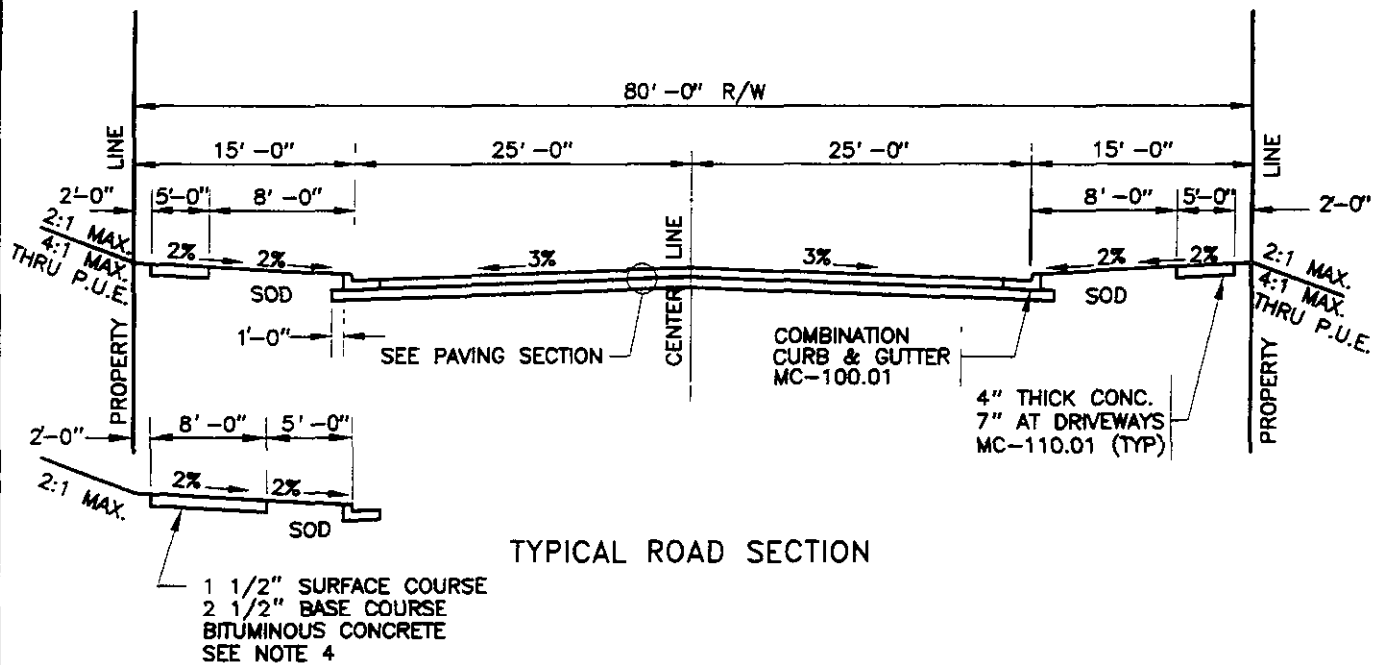
1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. PUBLIC UTILITY EASEMENTS (PUEs) ARE SUBJECT TO THE TERMS AND CONDITIONS OF A DOCUMENT ENTITLED "DECLARATIONS OF TERMS AND PROVISIONS OF PUBLIC UTILITY EASEMENTS" THAT IS RECORDED IN THE LAND RECORDS OF MONTGOMERY COUNTY IN LIBER 3834 AT FOLIO 457.
4. THE SIDE DITCH IN FILL SLOPES MAY BE ELIMINATED IN AREAS NOT MASTER PLANNED FOR DEVELOPMENT ONLY AFTER OVERLAND FLOW PATH AND EROSION POTENTIAL ARE CONSIDERED.
5. A PHYSICAL ROOT BARRIER SHALL BE PROVIDED WHERE STREET TREES ARE CLOSER THAN SIX FEET TO A SIDEWALK OR BIKEPATH. MINIMUM DEPTH OF ROOT BARRIER SHALL BE EIGHTEEN INCHES. ROOT BARRIER SHALL EXTEND A MINIMUM DISTANCE OF 10 FEET LONGITUDINALLY ON EITHER SIDE OF THE TREE.
6. SEE STANDARDS NO. MC-701.01 AND MC-703.02 FOR SPECIES, SIZE AND SPACING OF STREET TREES.
7. WHEN USING THIS STANDARD, THE GARAGE SHALL BE SET BACK A MINIMUM DISTANCE OF 20 FEET, MEASURED FROM THE BACK EDGE OF THE SIDEWALK (OR BIKEPATH, AS APPROPRIATE).
8. STREET LIGHTING POLES ARE TO BE LOCATED AS DIRECTED BY THE MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.
9. PUBLIC IMPROVEMENTS EASEMENTS (PIEs) ARE TO BE GRANTED BY A SITE SPECIFIC DECLARATION OF PUBLIC IMPROVEMENTS EASEMENT DOCUMENT. THAT DOCUMENT IS TO BE RECORDED IN THE LAND RECORDS OF MONTGOMERY COUNTY, MARYLAND AND REFERENCED ON THE RECORD PLAT.
10. THE 2-FOOT WIDE SECTIONS OF THE PIEs BEHIND THE SIDEWALK/BIKEPATH ARE TO ALLOW FOR THE CONSTRUCTION, RECONSTRUCTION, AND MAINTENANCE OF THE SIDEWALKS AND BIKEPATH (AND THE INSTALLATION OF STREETLIGHTING BEHIND THE SIDEWALK AND/OR THE BIKEPATH, IF REQUIRED BY THE DIVISION TRAFFIC AND PARKING SERVICES).
11. SEVERAL OF THE DIMENSIONS SPECIFIED ON THIS STANDARD REFLECT MODIFICATIONS TO THE VALUES SHOWN ON STANDARD NO. MC-301.03 (RESIDENTIAL DRIVEWAY/OPEN SECTION ROAD).
12. THIS STANDARD MAY BE MODIFIED AS APPROPRIATE TO ACCOMMODATE MASTER PLANNED CLASS II BIKEWAYS.
13. ELEVATION AT THE FRONT EDGE OF SIDEWALK/BIKEPATH = EDGE OF PAVEMENT ELEVATION + 0.50'
14. BIKEPATH WILL BE REQUIRED ONLY IF SPECIFIED IN THE MASTER PLAN OR IF INCLUDED AS A CONDITION OF SUBMISSION APPROVAL.

~~CHIEF, DIV. OF ENG. SERVICES~~

REVISÉD

MASTER PLAN PRIMARY ROAD
OPEN SECTION WITH SIDEWALK,
BIKEPATH AND STREET TREES

STANDARD NO. MC-212.05



BIKE PATH OPTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
5" BITUMINOUS CONCRETE BASE COURSE
8" GRADED AGGREGATE BASE COURSE IN 2 - 4" LAYERS
*
APPROVED SUBGRADE

PREFERRED

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
9" BITUMINOUS CONCRETE BASE COURSE IN 2 - 4 1/2" LAYERS
*
APPROVED SUBGRADE

ALTERNATE

* SUBGRADE DRAINS REQUIRED
SEE MC-525.01

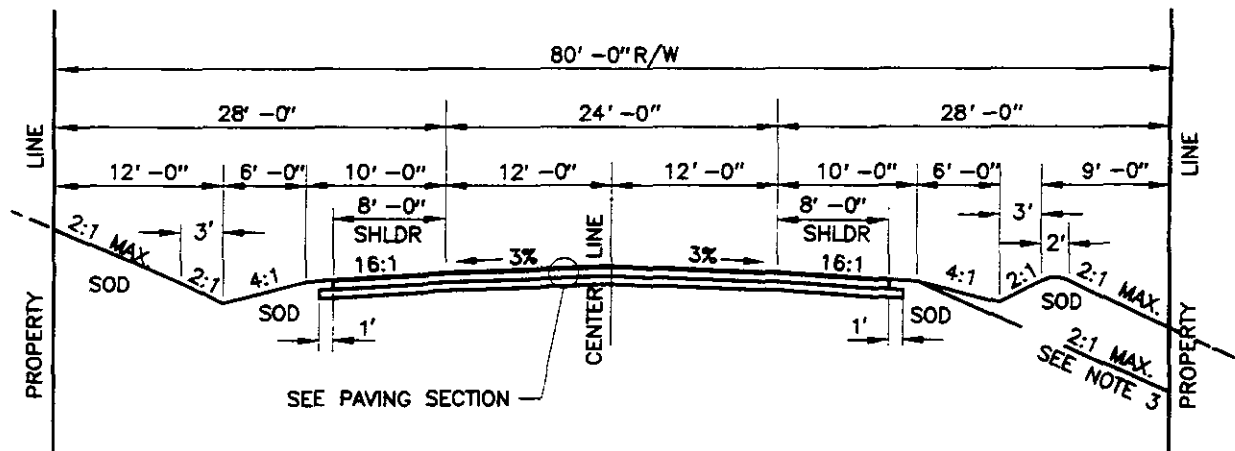
ALTERNATE PAVING SECTIONS

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. TOP OF CURB ELEVATION = CENTERLINE ELEVATION -0.34' (FOR 6" CURB HEIGHT).
4. BIKE PATH WILL BE REQUIRED ONLY IF SPECIFIED IN MASTER PLAN.
5. WHEN A TRAFFIC BARRIER IS WARRANTED INCREASE THE RIGHT OF WAY TO ALLOW THE TRAFFIC BARRIER TO BE PLACED OUTSIDE OF THE SIDEWALK.

P:\MDT\STD\MC21301 6-24-94 8:05:20 AM EST

APPROVED <u>JAN 5/96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>[Signature]</i> DIRECTOR, DEPT. OF TRANS.		ARTERIAL ROAD
<i>[Signature]</i> CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-213.01



TYPICAL ROAD SECTION
(OUTSIDE SUBURBAN DISTRICT)

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2 "LAYERS
5" BITUMINOUS CONCRETE BASE COURSE
8" GRADED AGGREGATE BASE COURSE IN 2 - 4" LAYERS
*
APPROVED SUBGRADE

PREFERRED

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2 "LAYERS
9" BITUMINOUS CONCRETE BASE COURSE IN 2 - 4 1/2" LAYERS
*
APPROVED SUBGRADE

ALTERNATE

* SUBGRADE DRAINS REQUIRED
SEE MC-525.01

ALTERNATE PAVING SECTIONS

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. THE SIDE DITCH IN FILL SLOPES MAY BE ELIMINATED IN AREAS NOT MASTER PLANNED FOR DEVELOPMENT ONLY AFTER OVERLAND FLOW PATH AND EROSION POTENTIAL ARE CONSIDERED.

P:\DOTSTD\MC21302 6-24-94 8:07:15 am EST

APPROVED JAN 5 / 96
DATE

Edmund S. Suter
DIRECTOR, DEPT. OF TRANS.

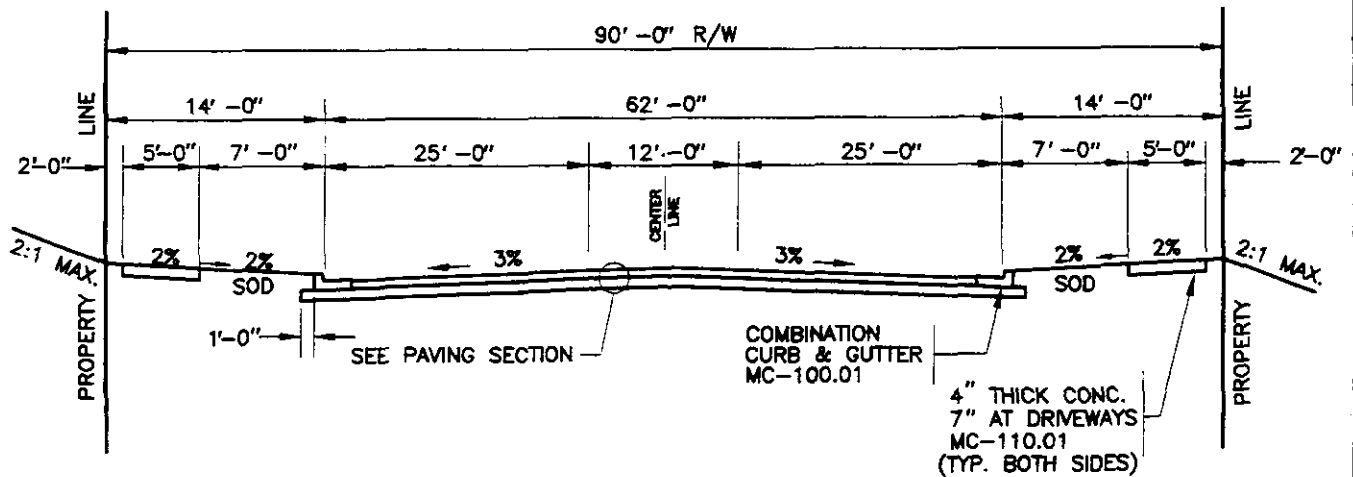
Edmund S. Suter
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD
OPEN SECTION

STANDARD NO. MC-213.02



TYPICAL ROAD SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN TWO 1 1/2" LAYERS
5" BITUMINOUS CONCRETE BASE COURSE
8" GRADED AGGREGATE BASE COURSE IN TWO 4" LAYERS
*
APPROVED SUBGRADE

PREFERRED

3" BITUMINOUS CONCRETE SURFACE COURSE IN TWO 1 1/2" LAYERS
9" BITUMINOUS CONCRETE BASE COURSE IN TWO 4 1/2" LAYERS
*
APPROVED SUBGRADE

ALTERNATE

* SUBGRADE DRAINS REQUIRED
SEE MC-525.01

PAVING SECTION GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. WHERE A CLASS III BIKE ROUTE IS SPECIFIED, CONSIDERATION SHALL BE GIVEN TO ADDITIONAL PAVEMENT WIDTH (DESIRABLE 2' IN EACH DIRECTION, R.O.W. = 94'). WHERE A CLASS II BIKE ROUTE IS SPECIFIED, THE PAVEMENT WIDTH SHALL BE 68' (R.O.W. = 96'). WHERE A CLASS I BIKE ROUTE (8' WIDE, 2' FROM THE PROPERTY LINE) IS SPECIFIED, A WIDTH OF 17' SHALL BE USED FROM FACE OF CURB TO THE PROPERTY LINE.
4. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
5. RAISED MEDIANS MAY BE USED TO CONTROL TURNING MOVEMENTS AND/OR TO PROVIDE PEDESTRIAN REFUGE.
6. TOP OF CURB ELEVATION = CENTERLINE ELEVATION - 0.52' (FOR 6" CURB HEIGHT).
7. WHEN A TRAFFIC BARRIER IS WARRANTED INCREASE THE RIGHT OF WAY TO ALLOW THE TRAFFIC BARRIER TO BE PLACED OUTSIDE OF THE SIDEWALK.

APPROVED JAN 5/96
DATE

[Signature]
DIRECTOR, DEPT. OF TRANS.

[Signature]
CHIEF DIV. OF ENG. SERVICES

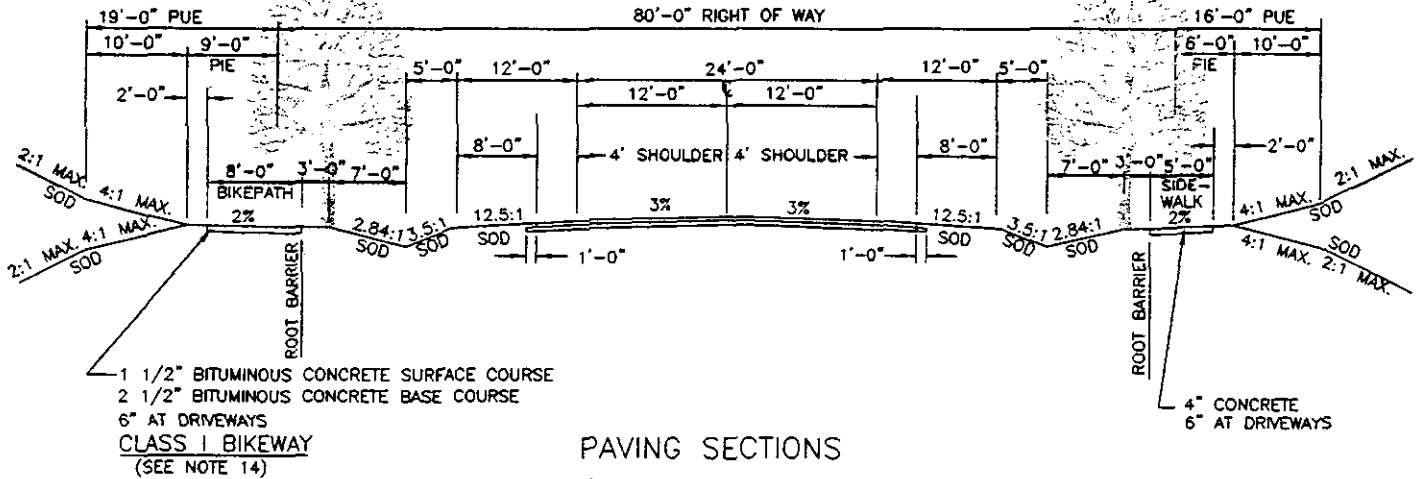
REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD - 5 LANES
INCLUDING CENTER LEFT TURN LANE

STANDARD NO. MC-213.03

TYPICAL ROAD SECTION



PAVING SECTIONS

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
5" BITUMINOUS CONCRETE BASE COURSE
*8" GRADED AGGREGATE BASE COURSE IN 2 - 4" LAYERS
APPROVED SUBGRADE

PREFERRED

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
*9" BITUMINOUS CONCRETE BASE COURSE IN 2 - 4 1/2" LAYERS
APPROVED SUBGRADE

ALTERNATE

*SUBGRADE DRAINS REQUIRED SEE MC-525.01

GENERAL NOTES

- REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
- SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
- PUBLIC UTILITY EASEMENTS (PUEs) ARE SUBJECT TO THE TERMS AND CONDITIONS OF A DOCUMENT ENTITLED "DECLARATIONS OF TERMS AND PROVISIONS OF PUBLIC UTILITY EASEMENTS" THAT IS RECORDED IN THE LAND RECORDS OF MONTGOMERY COUNTY IN LIBER 3834 AT FOLIO 457.
- THE SIDE DITCH IN FILL SLOPES MAY BE ELIMINATED IN AREAS NOT MASTER PLANNED FOR DEVELOPMENT ONLY AFTER OVERLAND FLOW PATH AND EROSION POTENTIAL ARE CONSIDERED.
- A PHYSICAL ROOT BARRIER SHALL BE PROVIDED WHERE STREET TREES ARE CLOSER THAN SIX FEET TO A SIDEWALK OR BIKEPATH. MINIMUM DEPTH OF ROOT BARRIER SHALL BE EIGHTEEN INCHES. ROOT BARRIER SHALL EXTEND A MINIMUM DISTANCE OF 10 FEET LONGITUDINALLY ON EITHER SIDE OF THE TREE.
- SEE STANDARDS NO. MC-701.01 AND MC-703.02 FOR SPECIES, SIZE AND SPACING OF STREET TREES.
- WHEN USING THIS STANDARD, THE GARAGE SHALL BE SET BACK A MINIMUM DISTANCE OF 20 FEET, MEASURED FROM THE BACK EDGE OF THE SIDEWALK (OR BIKEPATH, AS APPROPRIATE).
- STREET LIGHTING POLES ARE TO BE LOCATED AS DIRECTED BY THE MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.
- PUBLIC IMPROVEMENTS EASEMENTS (PIEs) ARE TO BE GRANTED BY A SITE SPECIFIC DECLARATION OF PUBLIC IMPROVEMENTS EASEMENT DOCUMENT. THAT DOCUMENT IS TO BE RECORDED IN THE LAND RECORDS OF MONTGOMERY COUNTY, MARYLAND AND REFERENCED ON THE RECORD PLAT.
- THE 2-FOOT WIDE SECTIONS OF THE PIEs BEHIND THE SIDEWALK/BIKEPATH ARE TO ALLOW FOR THE CONSTRUCTION, RECONSTRUCTION, AND MAINTENANCE OF THE SIDEWALKS AND BIKEPATH (AND THE INSTALLATION OF STREETLIGHTING BEHIND THE SIDEWALK AND/OR THE BIKEPATH, IF REQUIRED BY THE DIVISION TRAFFIC AND PARKING SERVICES).
- SEVERAL OF THE DIMENSIONS SPECIFIED ON THIS STANDARD REFLECT MODIFICATIONS TO THE VALUES SHOWN ON STANDARD NO. MC-301.03 (RESIDENTIAL DRIVEWAY/OPEN SECTION ROAD).
- DRIVEWAYS WILL BE CONSIDERED ON A CASE BY CASE BASIS, BUT ARE NOT TO BE ENCOURAGED ON ARTERIAL ROADWAYS. DRIVEWAY PIPES LARGER THAN 15" x 21" MAY NOT BE USED WITH THIS STANDARD.
- ELEVATION AT THE FRONT EDGE OF SIDEWALK/BIKEPATH = OUTSIDE EDGE OF PAVED SHOULDER ELEVATION + 0.46'.
- BIKEPATH WILL BE REQUIRED ONLY IF SPECIFIED IN THE MASTER PLAN OR IF INCLUDED AS A CONDITION OF SUBDIVISION APPROVAL.

APPROVED 11 July 2000

DATE

DIRECTOR, DPWT

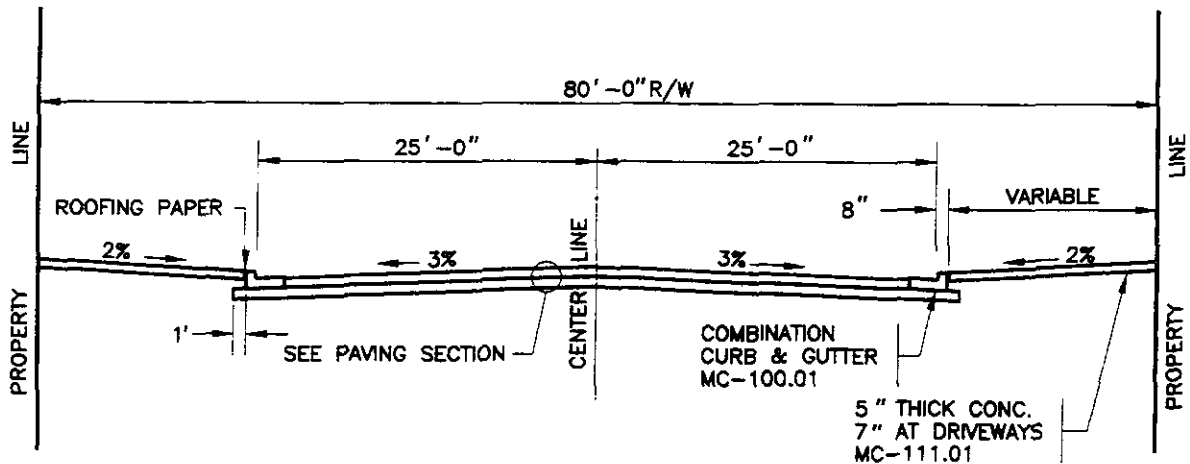
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION

ARTERIAL ROAD
OPEN SECTION WITH SIDEWALK,
BIKEPATH AND STREET TREES

STANDARD NO. MC-213.04



TYPICAL ROAD SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
7" BITUMINOUS CONCRETE BASE COURSE
8" GRADED AGGREGATE BASE COURSE IN 2 LAYERS
*
APPROVED SUBGRADE

PREFERRED

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
9" BITUMINOUS CONCRETE BASE COURSE IN 2 - 4 1/2" LAYERS
4" GRADED AGGREGATE BASE COURSE
*
APPROVED SUBGRADE

ALTERNATE

* SUBGRADE DRAINS REQUIRED
SEE MC-525.01

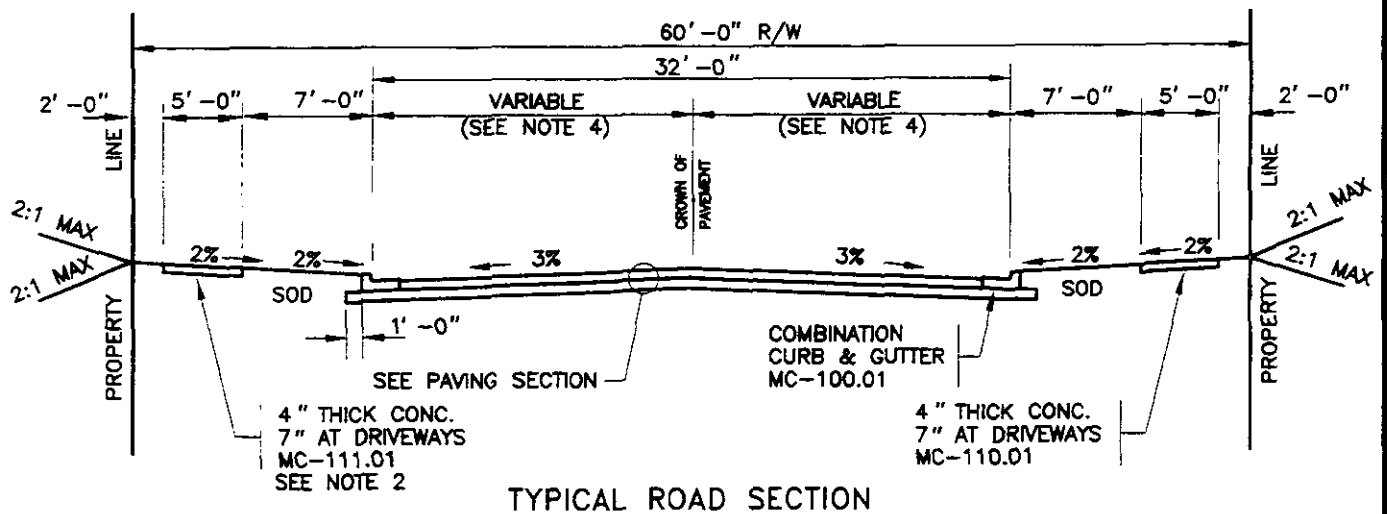
PAVING SECTIONS

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. TOP OF CURB ELEVATION = CENTERLINE ELEVATION -0.34' (FOR 6" CURB HEIGHT) .

P:\DOT\STD\MC214.01 6-24-94 8:23:38 AM EST

APPROVED <u>JAN 5/96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>[Signature]</i> DIRECTOR, DEPT. OF TRANS.		COMMERCIAL-BUSINESS DISTRICT ROAD
<i>[Signature]</i> CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-214.01



3" BITUMINOUS CONCRETE SURFACE COURSE IN TWO 1 1/2" LAYERS
7" BITUMINOUS CONCRETE BASE COURSE
8" GRADED AGGREGATE BASE COURSE IN TWO LAYERS
*
APPROVED SUBGRADE

PREFERRED

3" BITUMINOUS CONCRETE SURFACE COURSE IN TWO 1 1/2" LAYERS
9" BITUMINOUS CONCRETE BASE COURSE IN TWO 4 1/2" LAYERS
4" GRADED AGGREGATE BASE COURSE
*
APPROVED SUBGRADE

ALTERNATE

* SUBGRADE DRAINS REQUIRED
SEE MC-525.01

PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. WHERE BUILDINGS ARE GENERALLY LOCATED AT THE PROPERTY LINE, THE SIDEWALK SHALL EXTEND FROM CURB TO PROPERTY LINE WITH A 5' WIDE BY 5' LONG (OR BY VARIABLE OR CONTINUOUS LENGTH) SPACE FOR TREE PLANTINGS.
3. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
4. CROWN OF PAVEMENT TO BE LOCATED IN CENTER OF TRAVEL LANES.
5. THIS STANDARD PROVIDES FOR ONE TRAVEL LANE IN EACH DIRECTION.
6. WHEN A TRAFFIC BARRIER IS WARRANTED INCREASE THE RIGHT OF WAY TO ALLOW THE TRAFFIC BARRIER TO BE PLACED OUTSIDE OF THE SIDEWALK.

P:\0151\DWG\MC214.02 7-1-94 94441 ON EST

APPROVED JAN 5 / 96
DATE

[Signature]
DIRECTOR, DEPT. OF TRANS.

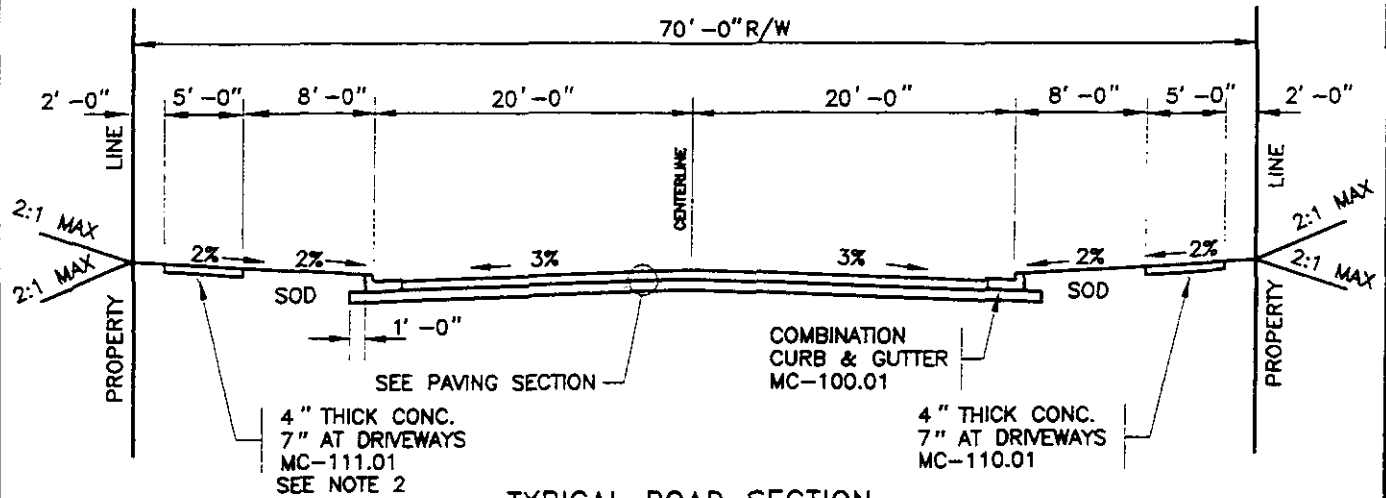
[Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

COMMERCIAL/INDUSTRIAL ROAD
60' RIGHT OF WAY

STANDARD NO. MC-214.02



3" BITUMINOUS CONCRETE SURFACE COURSE IN TWO 1 1/2" LAYERS
7" BITUMINOUS CONCRETE BASE COURSE
8" GRADED AGGREGATE BASE COURSE IN TWO LAYERS
*
APPROVED SUBGRADE

PREFERRED

3" BITUMINOUS CONCRETE SURFACE COURSE IN TWO 1 1/2" LAYERS
9" BITUMINOUS CONCRETE BASE COURSE IN TWO 4 1/2" LAYERS
4" GRADED AGGREGATE BASE COURSE
*
APPROVED SUBGRADE

ALTERNATE

* SUBGRADE DRAINS REQUIRED
SEE MC-525.01

PAVING SECTION

GENERAL NOTES

- WHERE BUILDINGS ARE GENERALLY LOCATED AT THE PROPERTY LINE, THE SIDEWALK SHALL EXTEND FROM CURB TO PROPERTY LINE WITH A 5' WIDE BY 5' LONG (OR BY VARIABLE OR CONTINUOUS LENGTH) SPACE FOR TREE PLANTINGS.
- OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
- REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
- TOP OF CURB ELEVATION = CENTERLINE ELEVATION - 0.19 (FOR 6" CURB HEIGHT).
- WHEN A TRAFFIC BARRIER IS WARRANTED INCREASE THE RIGHT OF WAY TO ALLOW THE TRAFFIC BARRIER TO BE PLACED OUTSIDE OF THE SIDEWALK.

APPROVED JAN 5/96
DATE

John M. ...
DIRECTOR, DEPT. OF TRANS.

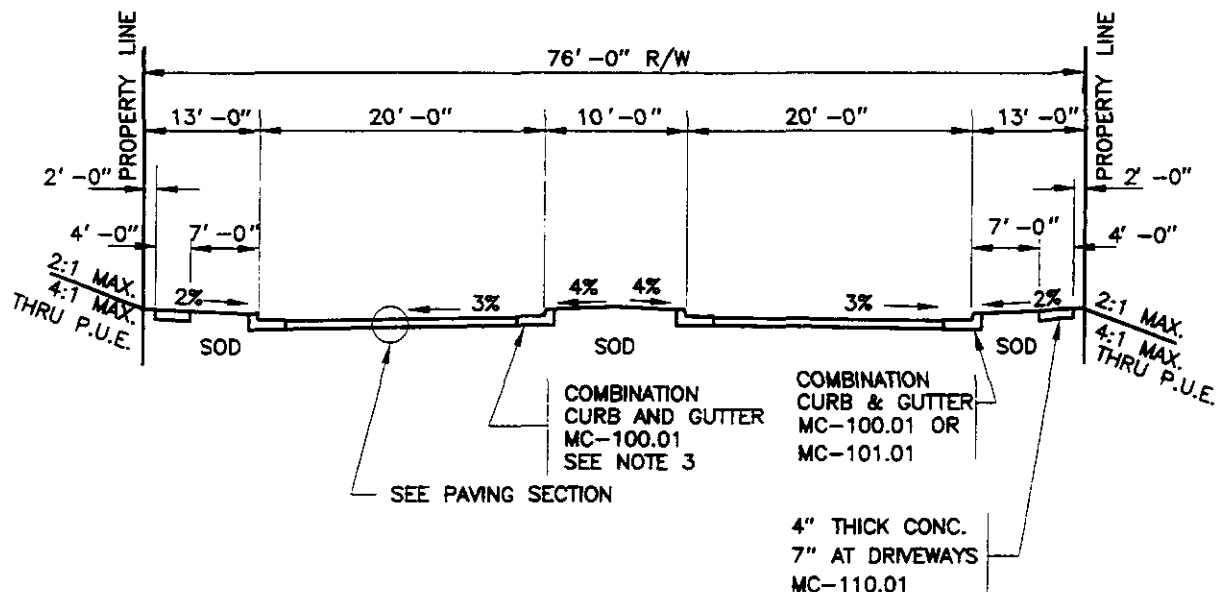
Edgar ...
CHIEF DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

COMMERCIAL/INDUSTRIAL ROAD
70' RIGHT OF WAY

STANDARD NO. MC-214.03



TYPICAL ROAD SECTION

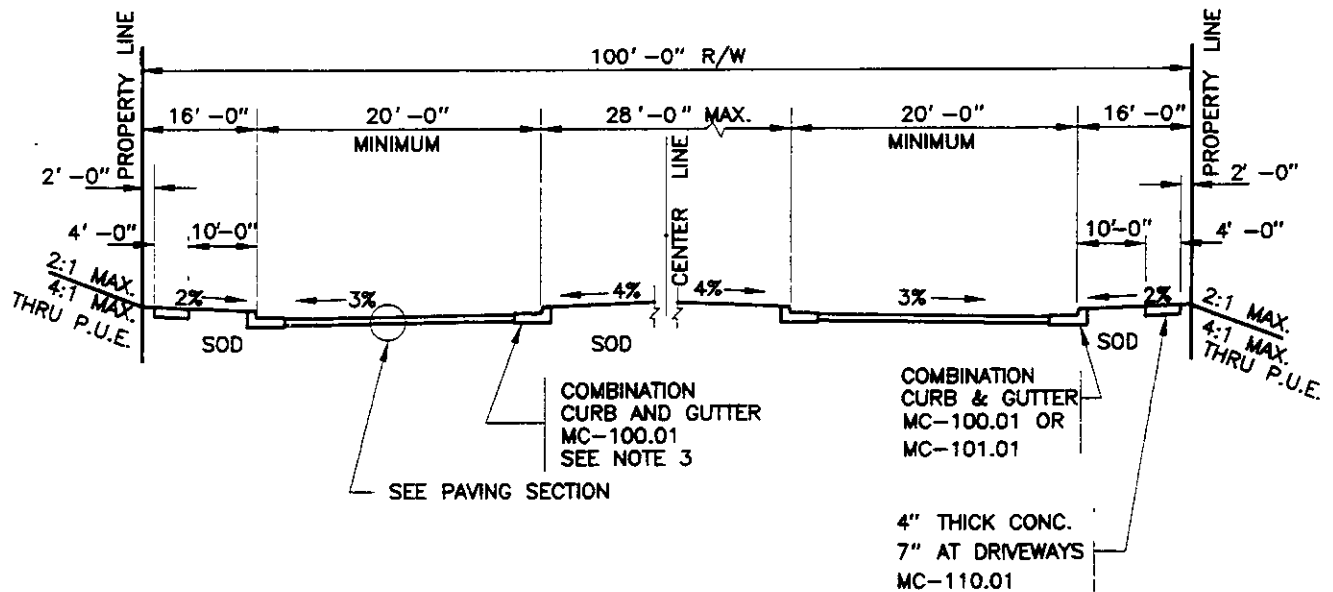
3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
3" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

PAVING SECTION
GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. IN TYPICAL SECTION OR SUPERELEVATED SECTION, THE HIGH SIDE GUTTER PAN SLOPE SHALL EQUAL THE PAVEMENT SLOPE.
4. TYPICAL TOP OF CURB (LOW SIDE) ELEVATION = FLOWLINE (HIGHSIDE) ELEVATION $-0.19'$ (FOR 6" CURB HEIGHT).
5. THIS STANDARD PROVIDES FOR ONE TRAVEL LANE IN EACH DIRECTION WITHOUT LEFT TURN STORAGE LANES.
6. WHERE A CLASS I BIKE ROUTE (8' WIDE 2' FROM THE PROPERTY LINE) IS SPECIFIED, A WIDTH OF 16'-0" SHALL BE USED FROM FACE OF CURB TO PROPERTY LINE. (80' RIGHT OF WAY)
7. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
8. WHEN A TRAFFIC BARRIER IS WARRANTED INCREASE THE RIGHT OF WAY TO ALLOW THE TRAFFIC BARRIER TO BE PLACED OUTSIDE OF THE SIDEWALK.

P:\DOT\STD\NC21501 9-28-95 2:19:19 pm EST

APPROVED <u>JAN 5/95</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>[Signature]</i> DIRECTOR, DEPT. OF TRANS.		SECONDARY RESIDENTIAL DUAL ROAD 76' RIGHT OF WAY
<i>[Signature]</i> CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-215.01



TYPICAL ROAD SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
3" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. IN TYPICAL SECTION OR SUPERELEVATED SECTION, THE HIGH SIDE GUTTER PAN SLOPE SHALL EQUAL THE PAVEMENT SLOPE.
4. TYPICAL TOP OF CURB (LOW SIDE) ELEVATION = FLOWLINE (HIGHSIDE) ELEVATION -0.19' (FOR 6" CURB HEIGHT).
5. THIS STANDARD PROVIDES FOR ONE TRAVEL LANE IN EACH DIRECTION WITHOUT LEFT TURN STORAGE LANES.
6. WHERE A CLASS 1 BIKE ROUTE (8' WIDE 2' FROM THE PROPERTY LINE) IS SPECIFIED, A WIDTH OF 16'-0" SHALL BE USED FROM FACE OF CURB TO PROPERTY LINE.
7. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
8. WHEN A TRAFFIC BARRIER IS WARRANTED HOLD A MINIMUM OF 7'-0" GREEN SPACE BETWEEN THE CURB AND THE SIDEWALK.

APPROVED JAN 5/95
DATE

Kirby M. ...
DIRECTOR, DEPT. OF TRANS.

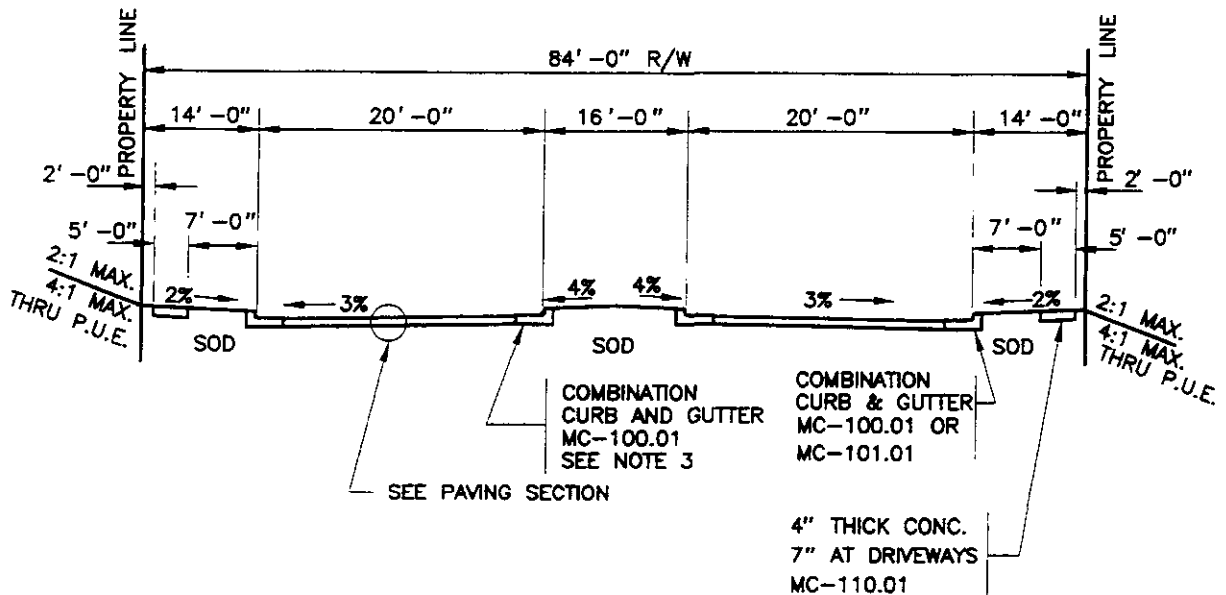
Edna ...
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

SECONDARY RESIDENTIAL
DUAL ROAD
100' RIGHT OF WAY

STANDARD NO. MC-215.02



TYPICAL ROAD SECTION

3" BITUMINOUS CONCRETE SURFACE
COURSE IN 2 - 1 1/2" LAYERS

5" BITUMINOUS CONCRETE BASE
COURSE

APPROVED SUBGRADE

PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. IN TYPICAL SECTION OR SUPERELEVATED SECTION, THE HIGH SIDE GUTTER PAN SLOPE SHALL EQUAL THE PAVEMENT SLOPE.
4. TYPICAL TOP OF CURB (LOW SIDE) ELEVATION = FLOWLINE (HIGHSIDE) ELEVATION - 0.19' (FOR 6" CURB HEIGHT).
5. THIS STANDARD PROVIDES FOR ONE TRAVEL LANE IN EACH DIRECTION WITHOUT LEFT TURN STORAGE LANES.
6. WHERE A CLASS I BIKE ROUTE (8' WIDE 2' FROM THE PROPERTY LINE) IS SPECIFIED, A WIDTH OF 16'-0" SHALL BE USED FROM FACE OF CURB TO PROPERTY LINE.
7. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
8. WHEN A TRAFFIC BARRIER IS WARRANTED INCREASE THE RIGHT OF WAY TO ALLOW THE TRAFFIC BARRIER TO BE PLACED OUTSIDE OF THE SIDEWALK.

APPROVED JAN 5/96
DATE

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DIRECTOR, DEPT. OF TRANS.

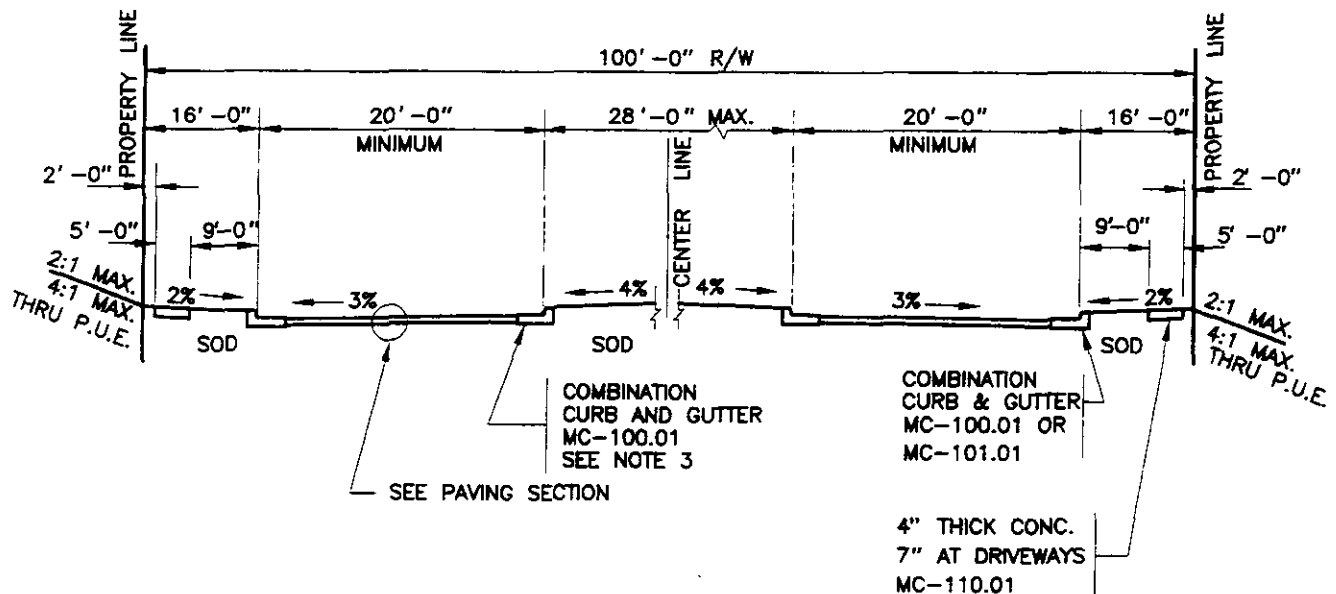
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CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

PRIMARY RESIDENTIAL
DUAL ROAD
84' RIGHT OF WAY

STANDARD NO. MC-216.01



TYPICAL ROAD SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
5" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. IN TYPICAL SECTION OR SUPERELEVATED SECTION, THE HIGH SIDE GUTTER PAN SLOPE SHALL EQUAL THE PAVEMENT SLOPE.
4. TYPICAL TOP OF CURB (LOW SIDE) ELEVATION = FLOWLINE (HIGHSIDE) ELEVATION - 0.19' (FOR 6" CURB HEIGHT).
5. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
6. WHEN A TRAFFIC BARRIER IS WARRANTED INCREASE THE RIGHT OF WAY TO ALLOW THE TRAFFIC BARRIER TO BE PLACED OUTSIDE OF THE SIDEWALK.

P:\DOT\STD\MC216.02 9-88-95 2-88-49 PM EST

APPROVED JAN 5/96
DATE

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DIRECTOR, DEPT. OF TRANS.

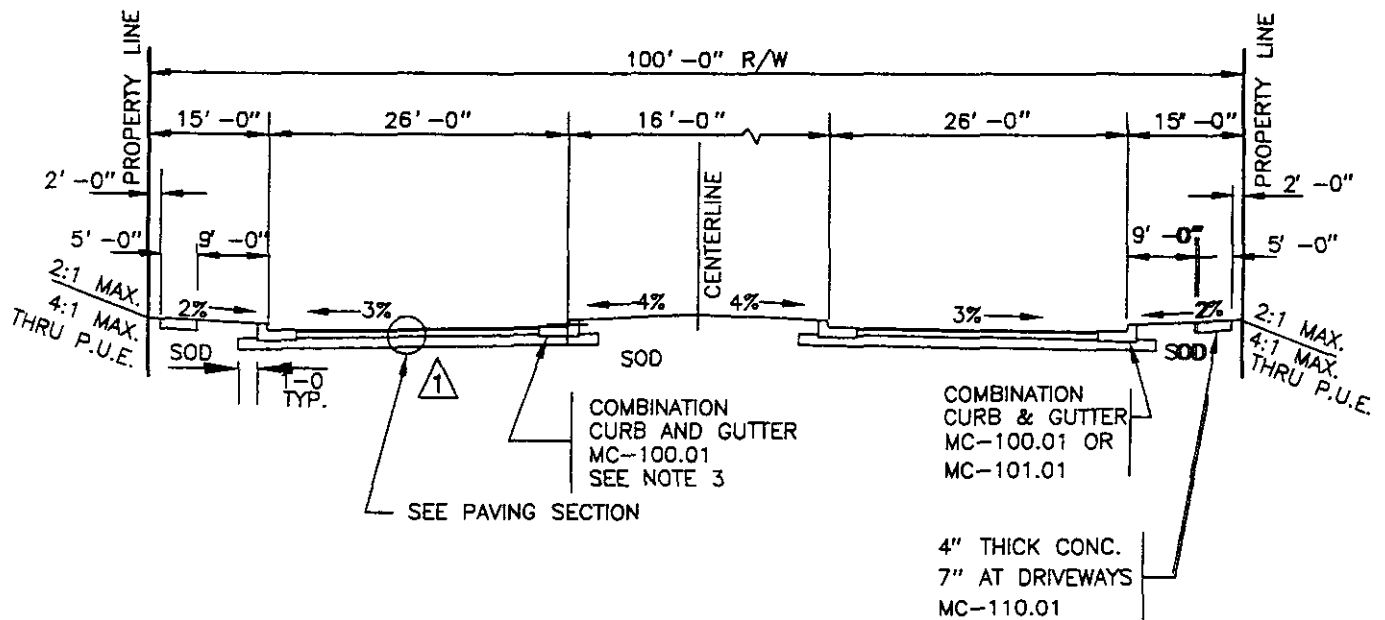
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CHIEF DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

PRIMARY RESIDENTIAL
DUAL ROAD
100' RIGHT OF WAY

STANDARD NO. MC-216.02



TYPICAL ROAD SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2 "LAYERS	3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2 "LAYERS
5" BITUMINOUS CONCRETE BASE COURSE	
8" GRADED AGGREGATE BASE COURSE IN 2 - 4" LAYERS	9" BITUMINOUS CONCRETE BASE COURSE IN 2 - 4 1/2 " LAYERS
*	*
APPROVED SUBGRADE	APPROVED SUBGRADE
PREFERRED	ALTERNATE

* SUBGRADE DRAINS REQUIRED
SEE MC-525.01

PAVING SECTION GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. IN TYPICAL SECTION OR SUPERELEVATED SECTION, THE HIGH SIDE GUTTER PAN SLOPE SHALL EQUAL THE PAVEMENT SLOPE.
4. TYPICAL TOP OF CURB (LOW SIDE) ELEVATION = FLOWLINE (HIGHSIDE) ELEVATION -0.37' (FOR 6" CURB HEIGHT).
5. A CLASS I BIKE ROUTE SHALL BE PROVIDED IF REQUIRED AS A RESULT OF THE DEVELOPMENT PROCESS OR IF SPECIFIED IN THE MASTER PLAN.
6. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
7. WHEN A TRAFFIC BARRIER IS WARRANTED INCREASE THE RIGHT OF WAY TO ALLOW THE TRAFFIC BARRIER TO BE PLACED OUTSIDE OF THE SIDEWALK.

APPROVED 15 Sep '00
DATE

[Signature]
DIRECTOR, DEPT. OF TRANS.

[Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED

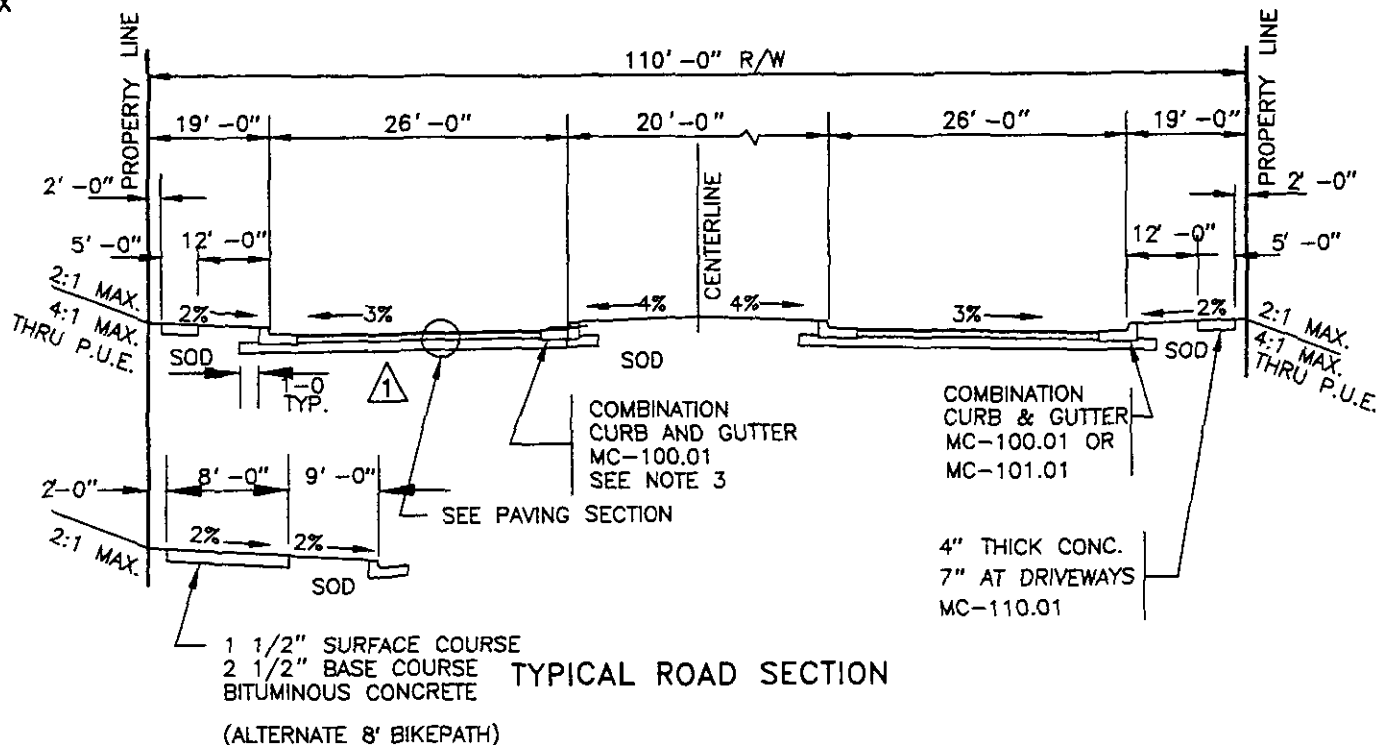
1 Add (GAB)
08-24-00

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

ARTERIAL DUAL ROAD
100' RIGHT OF WAY

STANDARD NO. MC-217.01

X



3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
5" BITUMINOUS CONCRETE BASE COURSE
8" GRADED AGGREGATE BASE COURSE IN 2 - 4" LAYERS
*
APPROVED SUBGRADE

PREFERRED

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
9" BITUMINOUS CONCRETE BASE COURSE IN 2 - 4 1/2" LAYERS
*
APPROVED SUBGRADE

ALTERNATE

* SUBGRADE DRAINS REQUIRED
SEE MC-525.01

PAVING SECTION GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. IN TYPICAL SECTION OR SUPERELEVATED SECTION, THE HIGH SIDE GUTTER PAN SLOPE SHALL EQUAL THE PAVEMENT SLOPE.
4. TYPICAL TOP OF CURB (LOW SIDE) ELEVATION = FLOWLINE (HIGHSIDE) ELEVATION -0.37' (FOR 6" CURB HEIGHT).
5. A CLASS I BIKE ROUTE SHALL BE PROVIDED IF REQUIRED AS A RESULT OF THE DEVELOPMENT PROCESS OR IF SPECIFIED IN THE MASTER PLAN.
6. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
7. WHEN A TRAFFIC BARRIER IS WARRANTED HOLD A MINIMUM OF 7'-0" GREEN SPACE BETWEEN THE CURB AND THE SIDEWALK.

APPROVED 15 Sep '00

[Signature]
DIRECTOR, DEPT. OF TRANS.

[Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED

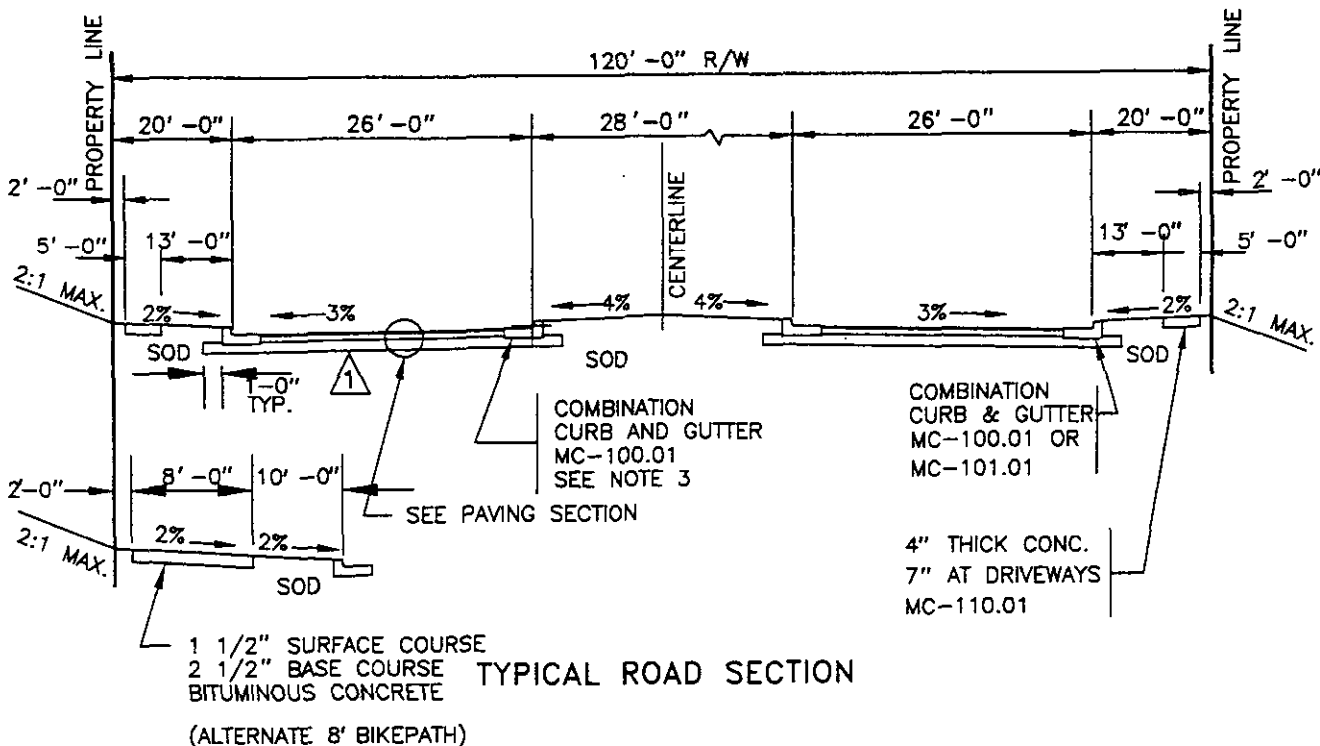
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Add (GAB)
08-24-00

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

ARTERIAL DUAL ROAD
110' RIGHT OF WAY

STANDARD NO. MC-217.02



3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
5" BITUMINOUS CONCRETE BASE COURSE
8" GRADED AGGREGATE BASE COURSE IN 2 - 4" LAYERS
*
APPROVED SUBGRADE

PREFERRED

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
9" BITUMINOUS CONCRETE BASE COURSE IN 2 - 4 1/2" LAYERS
*
APPROVED SUBGRADE

ALTERNATE

* SUBGRADE DRAINS REQUIRED
SEE MC-525.01

PAVING SECTION GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. IN TYPICAL SECTION OR SUPERELEVATED SECTION, THE HIGH SIDE GUTTER PAN SLOPE SHALL EQUAL THE PAVEMENT SLOPE.
4. TYPICAL TOP OF CURB (LOW SIDE) ELEVATION = FLOWLINE (HIGHSIDE) ELEVATION - 0.37' (FOR 6" CURB HEIGHT).
5. A CLASS I BIKE ROUTE SHALL BE PROVIDED IF REQUIRED AS A RESULT OF THE DEVELOPMENT PROCESS OR IF SPECIFIED IN THE MASTER PLAN.
6. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
7. WHEN A TRAFFIC BARRIER IS WARRANTED HOLD A MINIMUM OF 7'-0" GREEN SPACE BETWEEN THE CURB AND THE SIDEWALK.

APPROVED 15 Sep '00
DATE

[Signature]
DIRECTOR, DEPT. OF TRANS.

[Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED



Add (GAB)
08-24-00

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

ARTERIAL DUAL ROAD
120' RIGHT OF WAY

STANDARD NO. MC-217.03

[illegible]

CLASS 1 BIKEPATH
(SEE NOTE 14)

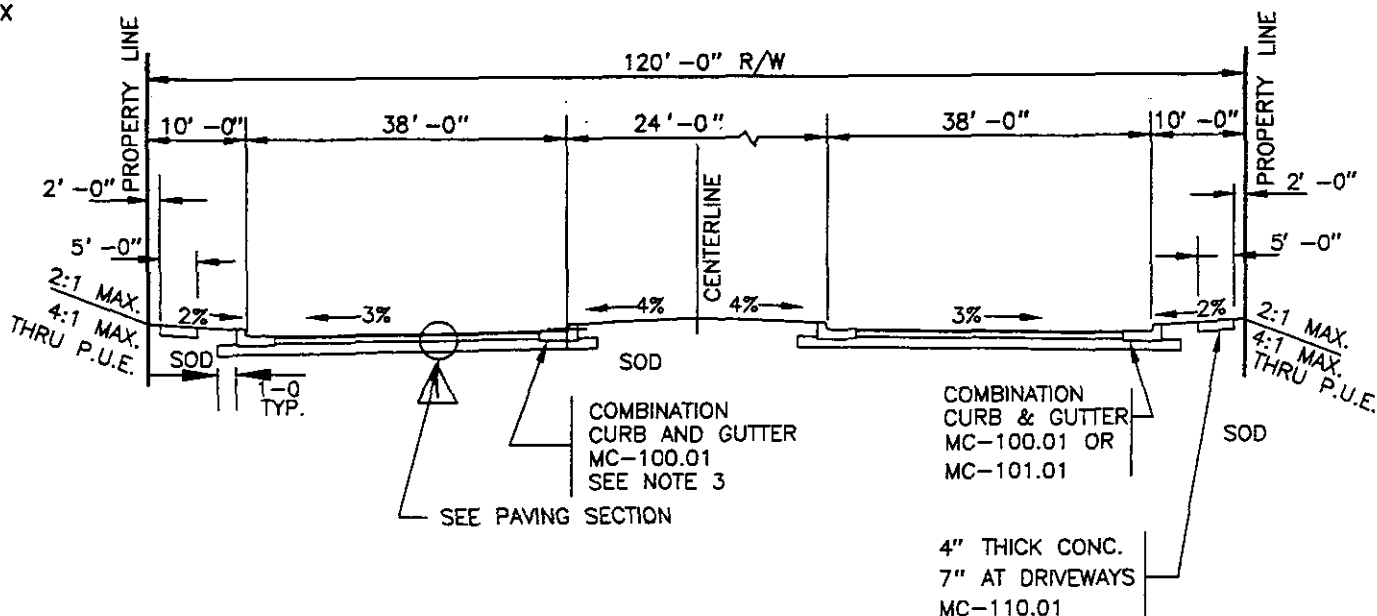
3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2 LAYERS
* 9" BITUMINOUS CONCRETE BASE COURSE IN 2 - 4 1/2" LAYERS
APPROVED SUBGRADE

ALTERNATE

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 -- METHODS OF GRADING SIDE SLOPES.
3. PUBLIC UTILITY EASEMENTS (PUEs) ARE SUBJECT TO THE TERMS AND CONDITIONS OF A DOCUMENT ENTITLED "DECLARATIONS OF TERMS AND PROVISIONS OF PUBLIC UTILITY EASEMENTS" THAT IS RECORDED IN THE LAND RECORDS OF MONTGOMERY COUNTY IN LIBER 3834 AT FOLIO 457.
4. THE SIDE DITCH IN FILL SLOPES MAY BE ELIMINATED IN AREAS NOT MASTER PLANNED FOR DEVELOPMENT ONLY AFTER OVERLAND FLOW PATH AND EROSION POTENTIAL ARE CONSIDERED.
5. A PHYSICAL ROOT BARRIER SHALL BE PROVIDED WHERE STREET TREES ARE CLOSER THAN SIX FEET TO A SIDEWALK OR BIKEPATH. MINIMUM DEPTH OF ROOT BARRIER SHALL BE EIGHTEEN INCHES. ROOT BARRIER SHALL EXTEND A MINIMUM DISTANCE OF 10 FEET LONGITUDINALLY ON EITHER SIDE OF THE TREE.
6. SEE STANDARDS NO. MC-701.01 AND MC-703.02 FOR SPECIES, SIZE AND SPACING OF STREET TREES.
7. WHEN USING THIS STANDARD, ALL GARAGES SHALL BE SET BACK A MINIMUM DISTANCE OF 20 FEET, MEASURED FROM THE BACK EDGE OF THE SIDEWALK (OR BIKEPATH, AS APPROPRIATE).
8. STREET LIGHTING POLES ARE TO BE LOCATED AS DIRECTED BY THE MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.
9. PUBLIC IMPROVEMENTS EASEMENTS (PIEs) ARE TO BE GRANTED BY A SITE SPECIFIC DECLARATION OF THE PUBLIC IMPROVEMENTS EASEMENT DOCUMENT. THAT DOCUMENT IS TO BE RECORDED IN THE LAND RECORDS OF MONTGOMERY COUNTY, MARYLAND AND REFERENCED ON THE RECORD PLAT.
10. THE 2-FOOT WIDE SECTIONS OF THE PIEs BEHIND THE SIDEWALK/BIKEPATH ARE TO ALLOW FOR THE CONSTRUCTION, RECONSTRUCTION, AND MAINTENANCE OF THE SIDEWALKS AND BIKEPATH (AND THE INSTALLATION OF STREETLIGHTING BEHIND THE SIDEWALK AND/OR THE BIKEPATH, IF REQUIRED BY THE DIVISION TRAFFIC AND PARKING SERVICES).
11. SEVERAL OF THE DIMENSIONS SPECIFIED ON THIS STANDARD REFLECT MODIFICATIONS TO THE VALUES SHOWN ON STANDARD NO. MC-301.03 (RESIDENTIAL DRIVEWAY/OPEN SECTION ROAD).
12. DRIVEWAYS WILL BE CONSIDERED ON A CASE BY CASE BASIS BUT ARE NOT TO BE ENCOURAGED ON ARTERIAL ROADWAYS. DRIVEWAY PIPES LARGER THAN 15" x 21" MAY NOT BE USED WITH THIS STANDARD.
13. ELEVATION AT THE FRONT EDGE OF SIDEWALK/BIKEPATH = OUTSIDE EDGE OF PAVED SHOULDER ELEVATION + 0.46'.
14. BIKEPATH WILL BE REQUIRED ONLY IF SPECIFIED IN THE MASTER PLAN OR IF INCLUDED AS A CONDITION OF SUBDIVISION APPROVAL.

STANDARD NO. MC-217.04

X



TYPICAL ROAD SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
5" BITUMINOUS CONCRETE BASE COURSE
8" GRADED AGGREGATE BASE COURSE IN 2 - 4" LAYERS
*
APPROVED SUBGRADE

PREFERRED

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
9" BITUMINOUS CONCRETE BASE COURSE IN 2 - 4 1/2" LAYERS
*
APPROVED SUBGRADE

ALTERNATE

* SUBGRADE DRAINS REQUIRED
SEE MC-525.01

PAVING SECTION GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. IN TYPICAL SECTION OR SUPERELEVATED SECTION, THE HIGH SIDE GUTTER PAN SLOPE SHALL EQUAL THE PAVEMENT SLOPE.
4. TYPICAL TOP OF CURB (LOW SIDE) ELEVATION = FLOWLINE (HIGHSIDE) ELEVATION - 0.73' (FOR 6" CURB HEIGHT).
5. A CLASS I BIKE ROUTE SHALL BE PROVIDED IF REQUIRED AS A RESULT OF THE DEVELOPMENT PROCESS OR IF SPECIFIED IN THE MASTER PLAN.
6. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
7. WHEN A TRAFFIC BARRIER IS WARRANTED INCREASE THE RIGHT OF WAY TO ALLOW THE TRAFFIC BARRIER TO BE PLACED OUTSIDE OF THE SIDEWALK.

APPROVED 15 Sep '00

[Signature]
DIRECTOR, DEPT. OF TRANS.

[Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED

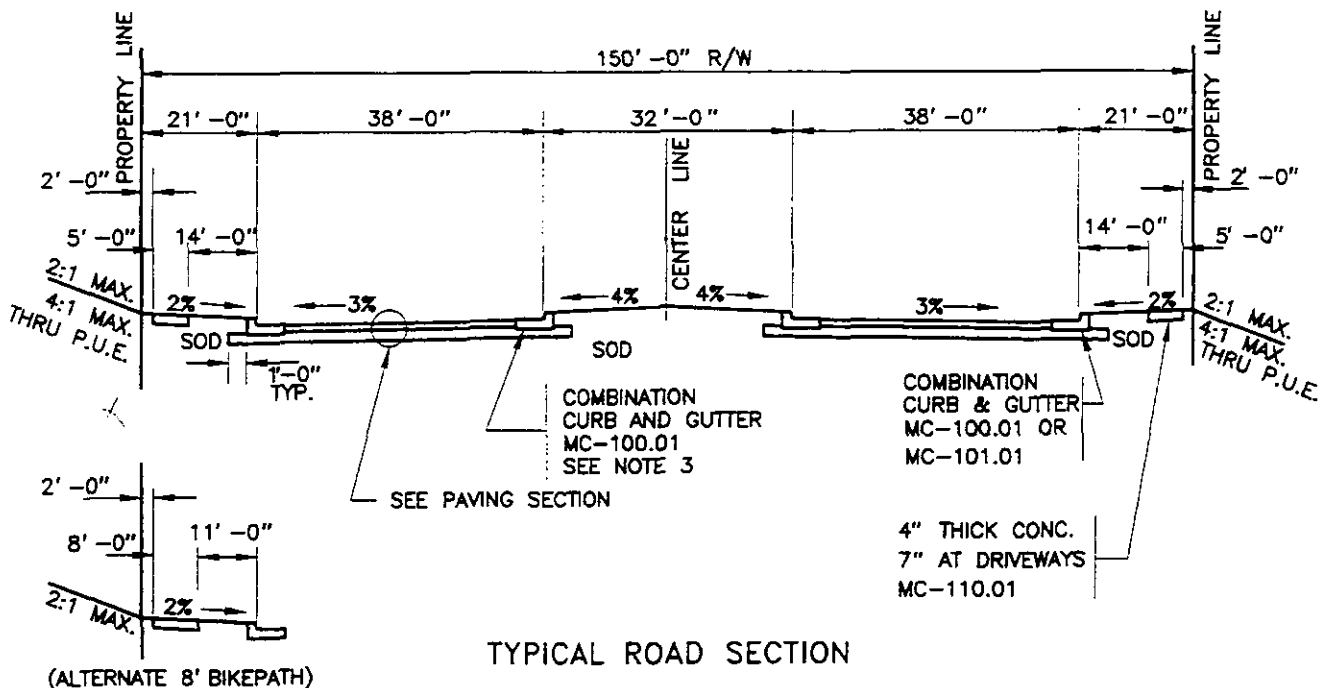


Add (GAB)
08-24-00

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

MAJOR DUAL ROAD
120' RIGHT OF WAY

STANDARD NO. MC-218.01



3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
5" BITUMINOUS CONCRETE BASE COURSE
8" GRADED AGGREGATE BASE COURSE IN 2 - 4" LAYERS
*
APPROVED SUBGRADE

PREFERRED

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 1/2" LAYERS
9" BITUMINOUS CONCRETE BASE COURSE IN 2 - 4 1/2" LAYERS
*
APPROVED SUBGRADE

ALTERNATE

* SUBGRADE DRAINS REQUIRED
SEE MC-525.01

PAVING SECTION GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 - METHODS OF GRADING SIDE SLOPES.
3. IN TYPICAL SECTION OR SUPERELEVATED SECTION, THE HIGH SIDE GUTTER PAN SLOPE SHALL EQUAL THE PAVEMENT SLOPE.
4. TYPICAL TOP OF CURB (LOW SIDE) ELEVATION = FLOWLINE (HIGHSIDE) ELEVATION -0.37' (FOR 6" CURB HEIGHT).
5. A CLASS I BIKE ROUTE SHALL BE PROVIDED IF REQUIRED AS A RESULT OF THE DEVELOPMENT PROCESS OR IF SPECIFIED IN THE MASTER PLAN.
6. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
7. WHEN A TRAFFIC BARRIER IS WARRANTED HOLD A MINIMUM OF 7'-0" GREEN SPACE BETWEEN THE CURB AND THE SIDEWALK.

APPROVED JAN 5 / 96
DATE

Shirley Moore
DIRECTOR, DEPT. OF TRANS.

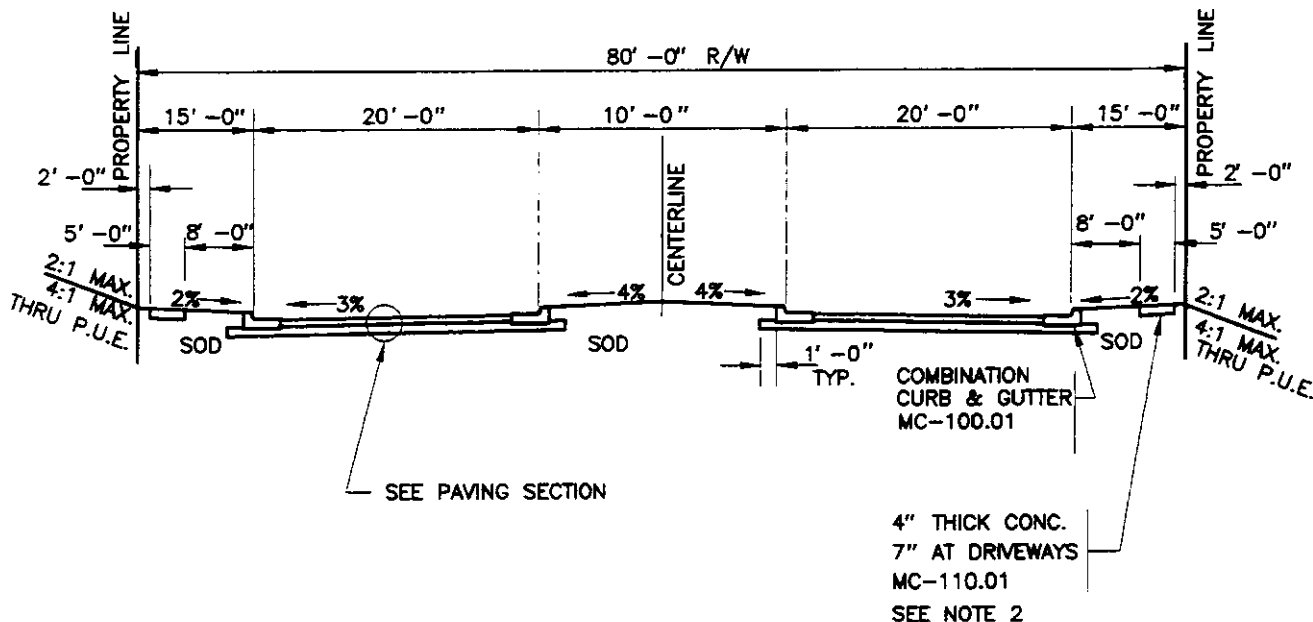
Edgar Fox
CHIEF DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

MAJOR DUAL HIGHWAY
150' RIGHT OF WAY

STANDARD NO. MC-218.02



TYPICAL ROAD SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN TWO 1 1/2" LAYERS
7" BITUMINOUS CONCRETE BASE COURSE
8" GRADED AGGREGATE BASE COURSE IN TWO LAYERS
*
APPROVED SUBGRADE

PREFERRED

3" BITUMINOUS CONCRETE SURFACE COURSE IN TWO 1 1/2" LAYERS
9" BITUMINOUS CONCRETE BASE COURSE IN TWO 4 1/2" LAYERS
4" GRADED AGGREGATE BASE COURSE
*
APPROVED SUBGRADE

ALTERNATE

* SUBGRADE DRAINS REQUIRED
SEE MC-525.01

PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. WHERE BUILDINGS ARE GENERALLY LOCATED AT THE PROPERTY LINE, THE SIDEWALK SHALL EXTEND FROM CURB TO PROPERTY LINE WITH A 5' WIDE BY 5' LONG (OR BY VARIABLE OR CONTINUOUS LENGTH) SPACE FOR TREE PLANTINGS.
3. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
4. TYPICAL TOP OF CURB (LOW SIDE) ELEVATION = FLOWLINE (HIGH SIDE) ELEVATION -0.19' (FOR 6" CURB HEIGHT).
5. THIS STANDARD PROVIDES ONE TRAVEL LANE IN EACH DIRECTION WITHOUT LEFT TURN STORAGE LANES.
6. WHEN A TRAFFIC BARRIER IS WARRANTED INCREASE THE RIGHT OF WAY TO ALLOW THE TRAFFIC BARRIER TO BE PLACED OUTSIDE OF THE SIDEWALK.

APPROVED JAN 5/96
DATE

John M. DeLo
DIRECTOR, DEPT. OF TRANS.

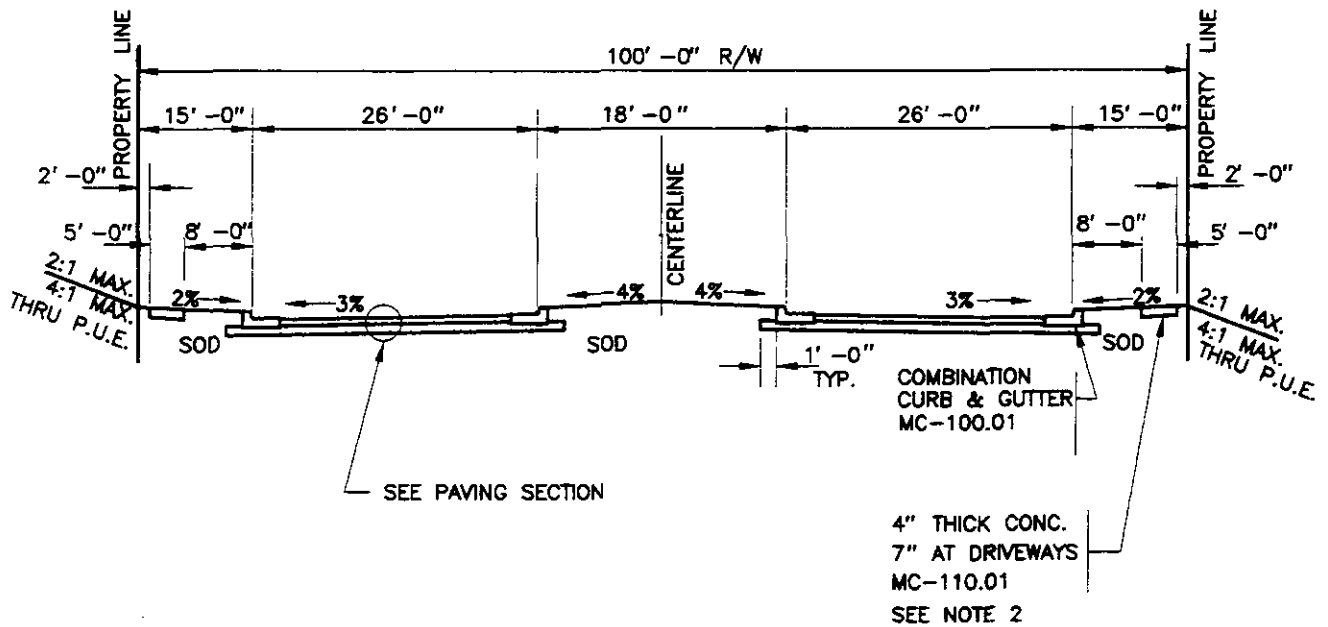
Edgar J. ...
CHIEF DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

COMMERCIAL/INDUSTRIAL
DUAL ROAD
80' RIGHT OF WAY

STANDARD NO. MC-219.01



TYPICAL ROAD SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN TWO 1 1/2" LAYERS
7" BITUMINOUS CONCRETE BASE COURSE
8" GRADED AGGREGATE BASE COURSE IN TWO LAYERS
*
APPROVED SUBGRADE

PREFERRED

3" BITUMINOUS CONCRETE SURFACE COURSE IN TWO 1 1/2" LAYERS
9" BITUMINOUS CONCRETE BASE COURSE IN TWO 4 1/2" LAYERS
4" GRADED AGGREGATE BASE COURSE
*
APPROVED SUBGRADE

ALTERNATE

* SUBGRADE DRAINS REQUIRED
SEE MC-525.01

PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. WHERE BUILDINGS ARE GENERALLY LOCATED AT THE PROPERTY LINE, THE SIDEWALK SHALL EXTEND FROM CURB TO PROPERTY LINE WITH A 5' WIDE BY 5' LONG (OR BY VARIABLE OR CONTINUOUS LENGTH) SPACE FOR TREE PLANTINGS.
3. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
4. TYPICAL TOP OF CURB (LOW SIDE) ELEVATION = FLOWLINE (HIGH SIDE) ELEVATION -0.37' (FOR 6" CURB HEIGHT).
8. WHEN A TRAFFIC BARRIER IS WARRANTED INCREASE THE RIGHT OF WAY TO ALLOW THE TRAFFIC BARRIER TO BE PLACED OUTSIDE OF THE SIDEWALK.

APPROVED JAN 5/95
DATE

Tracy M. DeLoach
DIRECTOR, DEPT. OF TRANS.

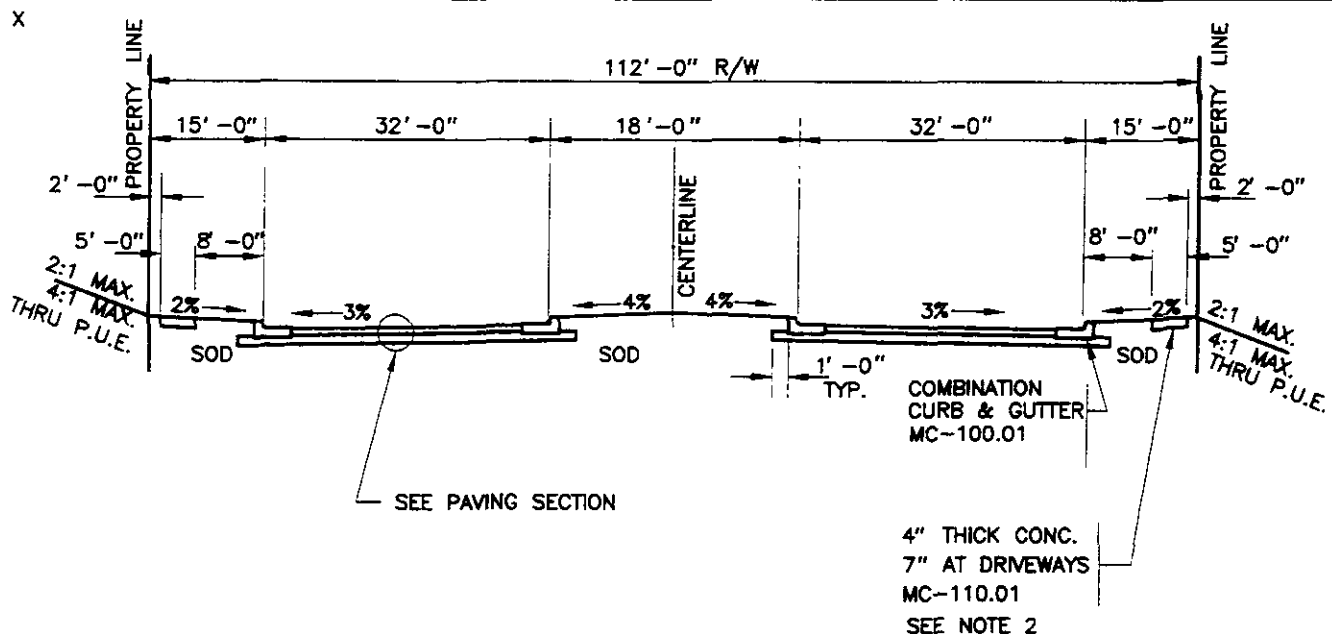
Edgar J. Orzech
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

COMMERCIAL/INDUSTRIAL
DUAL ROAD
100' RIGHT OF WAY

STANDARD NO. MC-219.02



TYPICAL ROAD SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN TWO 1 1/2" LAYERS
7" BITUMINOUS CONCRETE BASE COURSE
8" GRADED AGGREGATE BASE COURSE IN TWO LAYERS
*
APPROVED SUBGRADE

PREFERRED

3" BITUMINOUS CONCRETE SURFACE COURSE IN TWO 1 1/2" LAYERS
9" BITUMINOUS CONCRETE BASE COURSE IN TWO 4 1/2" LAYERS
4" GRADED AGGREGATE BASE COURSE
*
APPROVED SUBGRADE

ALTERNATE

* SUBGRADE DRAINS REQUIRED
SEE MC-525.01

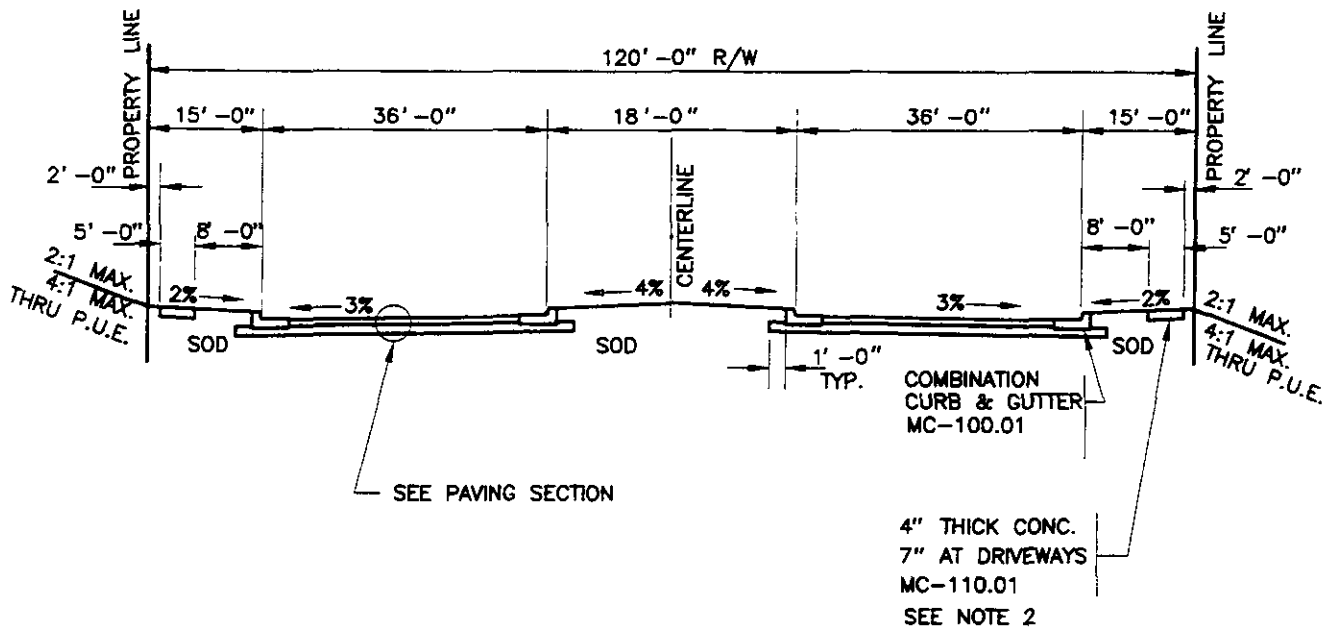
PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. WHERE BUILDINGS ARE GENERALLY LOCATED AT THE PROPERTY LINE, THE SIDEWALK SHALL EXTEND FROM CURB TO PROPERTY LINE WITH A 5' WIDE BY 5' LONG (OR BY VARIABLE OR CONTINUOUS LENGTH) SPACE FOR TREE PLANTINGS.
3. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
4. TOP OF CURB (LOW SIDE) ELEVATION = FLOWLINE (HIGH SIDE) ELEVATION - 0.55' (FOR 6" CURB HEIGHT).
5. THIS STANDARD PROVIDES TWO TRAVEL LANES IN EACH DIRECTION WITH LEFT TURN STORAGE LANES.
6. WHEN A TRAFFIC BARRIER IS WARRANTED INCREASE THE RIGHT OF WAY TO ALLOW THE TRAFFIC BARRIER TO BE PLACED OUTSIDE OF THE SIDEWALK.

P:\DOTS\DMC219.03 7-1-94 94007 on EST

APPROVED <u>JAN 5/96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>Lesly M. DeLo</i> DIRECTOR, DEPT. OF TRANS.		COMMERCIAL/INDUSTRIAL DUAL ROAD
<i>Edgar J. Boush</i> CHIEF, DIV. OF ENG. SERVICES		112' RIGHT OF WAY
		STANDARD NO. MC-219.03



TYPICAL ROAD SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN TWO 1 1/2" LAYERS
7" BITUMINOUS CONCRETE BASE COURSE
8" GRADED AGGREGATE BASE COURSE IN TWO LAYERS
*
APPROVED SUBGRADE

PREFERRED

3" BITUMINOUS CONCRETE SURFACE COURSE IN TWO 1 1/2" LAYERS
9" BITUMINOUS CONCRETE BASE COURSE IN TWO 4 1/2" LAYERS
4" GRADED AGGREGATE BASE COURSE
*
APPROVED SUBGRADE

ALTERNATE

* SUBGRADE DRAINS REQUIRED
SEE MC-525.01

PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. WHERE BUILDINGS ARE GENERALLY LOCATED AT THE PROPERTY LINE, THE SIDEWALK SHALL BE 15' WIDE HAVING A 5' WIDE BY 5' LONG OR (BY VARIABLE OR CONTINUOUS LENGTH) SPACE FOR TREE PLANTINGS.
3. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
4. TOP OF CURB (LOW SIDE) ELEVATION = FLOWLINE (HIGH SIDE) ELEVATION - 0.67' (FOR 6" CURB HEIGHT).
5. THIS STANDARD PROVIDES TWO OR THREE TRAVEL LANES IN EACH DIRECTION.
6. WHEN A TRAFFIC BARRIER IS WARRANTED INCREASE THE RIGHT OF WAY TO ALLOW THE TRAFFIC BARRIER TO BE PLACED OUTSIDE OF THE SIDEWALK.

APPROVED JAN 5 / 96
DATE

[Signature]
DIRECTOR, DEPT. OF TRANS.

[Signature]
CHIEF, DIV. OF ENG. SERVICES

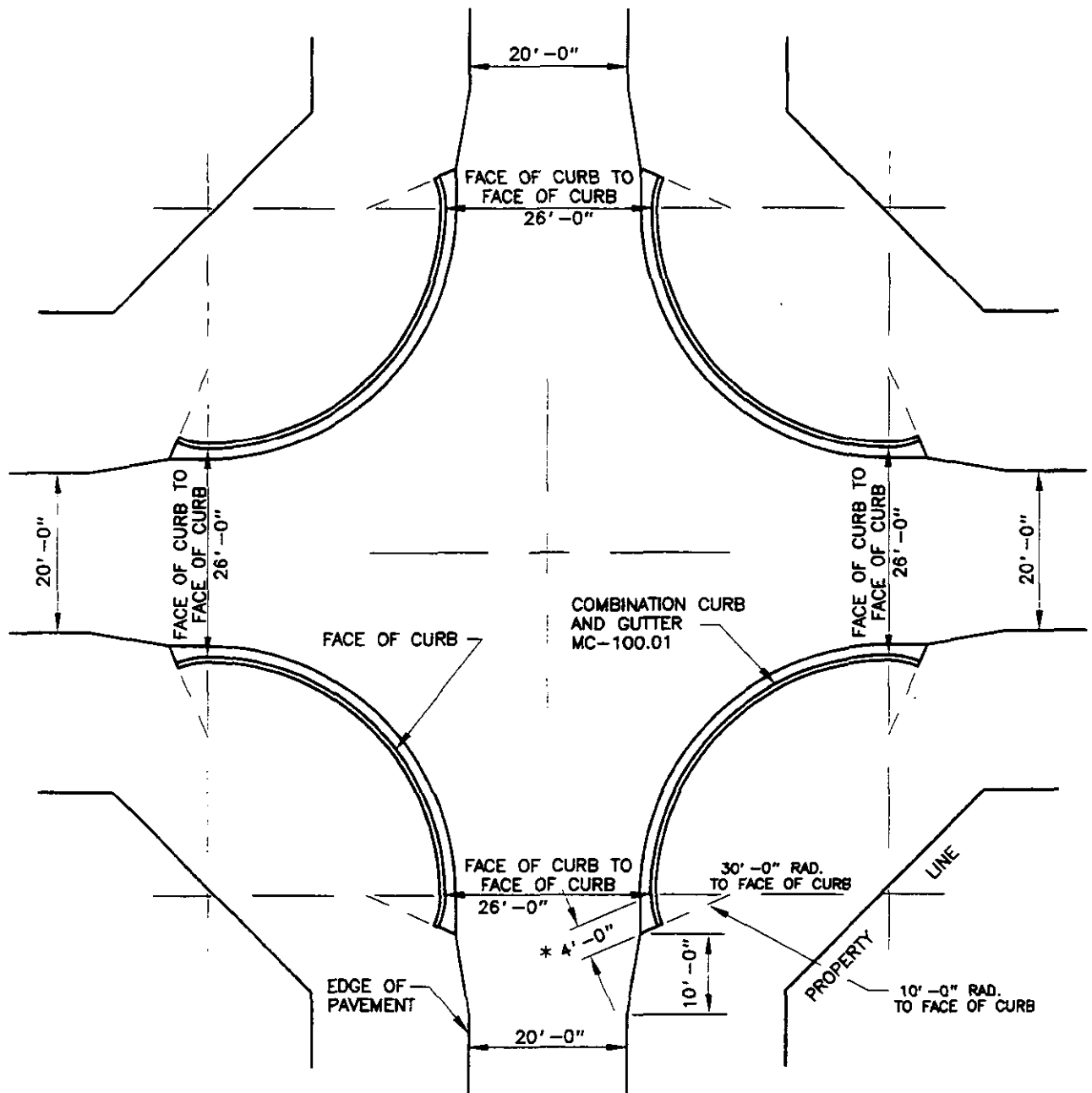
REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

COMMERCIAL/INDUSTRIAL
DUAL ROAD

120' RIGHT OF WAY

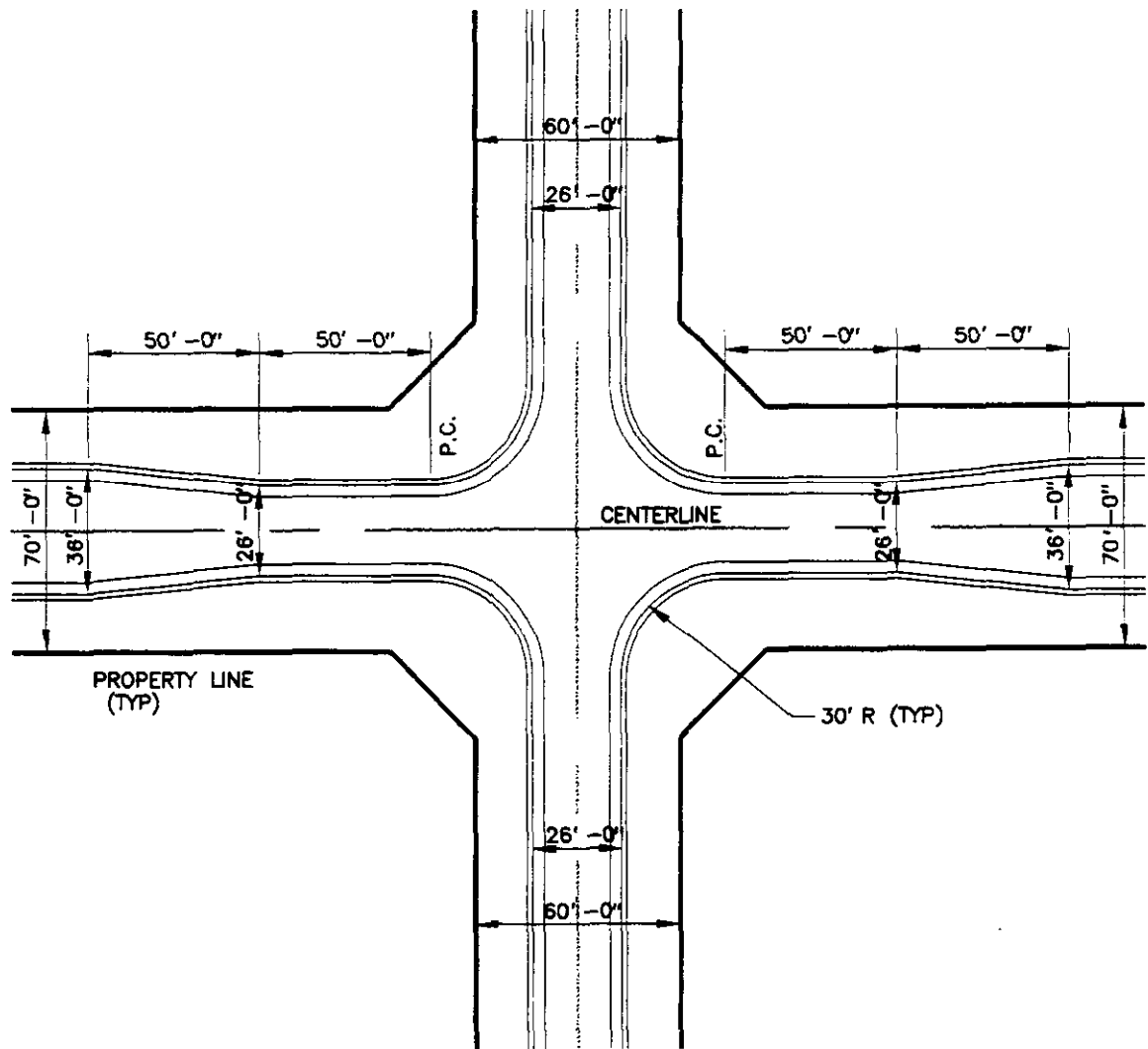
STANDARD NO. MC-219.04



* DIMINISH CURB HEIGHT FROM 6" TO 0" IN 4'-0".

P:\DOTSTD\MC220.01 6-24-94 8:44:24 am EST

<p>APPROVED <u>JAN 5/95</u> DATE</p> <p><i>[Signature]</i> DIRECTOR, DEPT. OF TRANS.</p> <p><i>[Signature]</i> CHIEF, DIV. OF ENG. SERVICES</p>	<p>REVISED</p> <table border="1"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>								<p>MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION</p> <p>RESIDENTIAL ROAD INTERSECTION OPEN SECTION WITH CURB AND GUTTER PLACEMENT</p> <p>STANDARD NO. MC-220.01</p>



GENERAL NOTES

1. THIS STANDARD MAY BE USED ONLY WITH PRIOR APPROVAL OF MCDOT AT THE PRELIMINARY PLAN STAGE.
2. THE NEAREST POINT OF ANY DRIVEWAY APRON EXTENSION SHALL NOT BE LOCATED WITHIN 25' OF THE POINT OF CURVATURE OF THE CURB AND GUTTER AT THE INTERSECTION.
3. THIS STANDARD IS APPLICABLE TO THE INTERSECTION OF TERTIARY, SECONDARY OR PRIMARY RESIDENTIAL ROADS WITH PRIMARY RESIDENTIAL ROADS.
4. PARKING WILL NOT BE ALLOWED WITHIN THE TAPERED AND NARROWED PORTION OF THE PRIMARY ROAD.
5. STREET TREE PLANTINGS SHALL BE DONE IN ACCORDANCE WITH MCDOT STANDARD MC-830.01.
6. SIDEWALKS SHALL BE PROVIDED IN ACCORDANCE WITH THE APPLICABLE ROAD STANDARDS AND STANDARD MC-112.01 FOR RESIDENTIAL SIDEWALK RAMPS.

P:\DOTSTD\MC221.01 6-24-94 8:47:57 am EST

APPROVED JAN 5/96
DATE

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DIRECTOR, DEPT. OF TRANS.

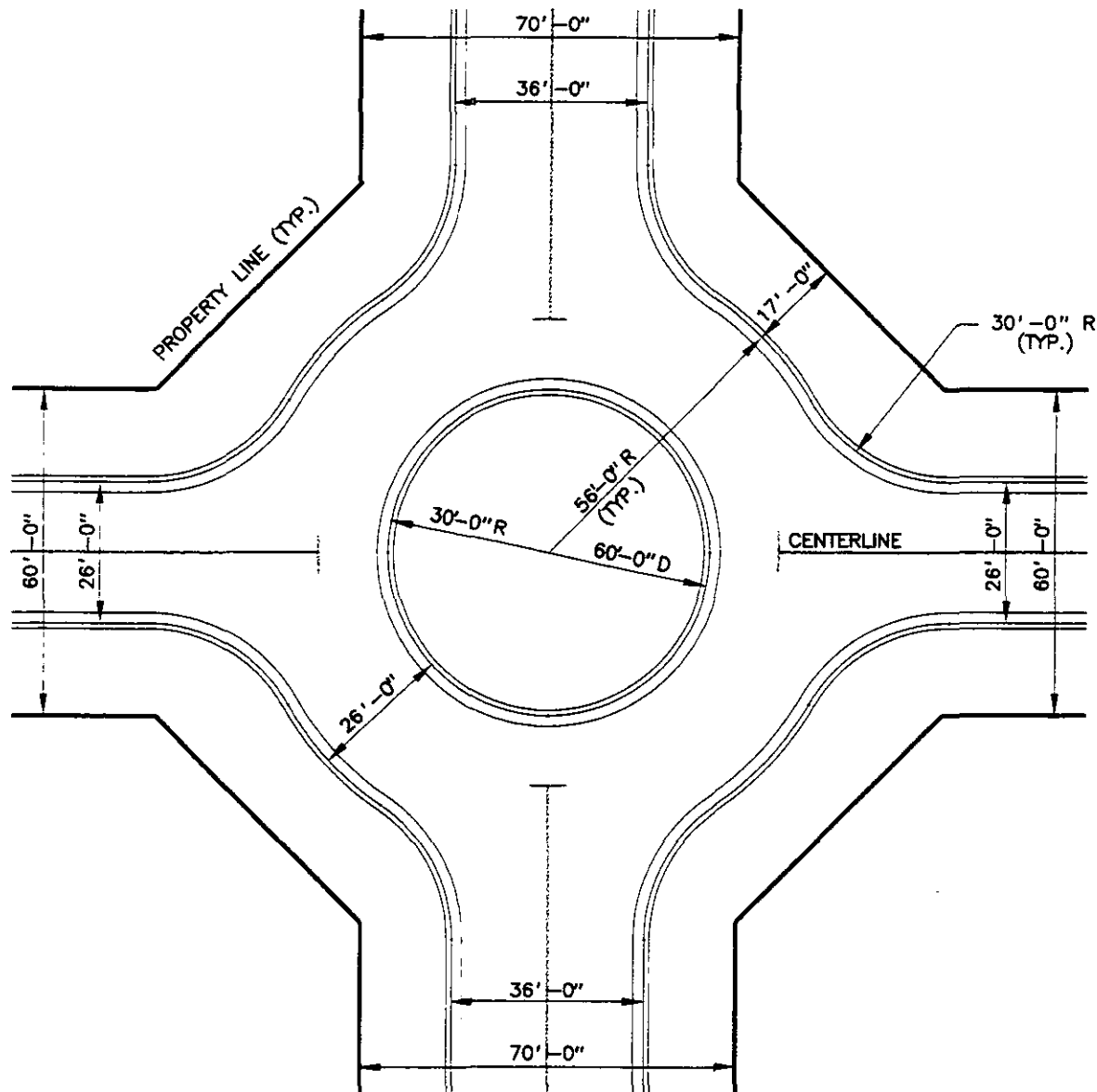
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CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL INTERSECTION
RESIDENTIAL ROADS

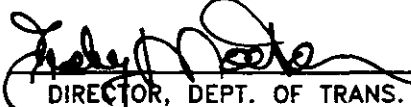

STANDARD NO. 221.01



GENERAL NOTES

1. THIS STANDARD MAY BE USED ONLY WITH THE PRIOR APPROVAL OF MCDOT AT THE PRELIMINARY PLAN STAGE.
2. THIS STANDARD IS APPLICABLE TO INTERSECTIONS OF TERTIARY, SECONDARY AND PRIMARY ROADS WITH OTHER TERTIARY, SECONDARY OR PRIMARY ROADS. IT IS NOT APPLICABLE TO ROADS WITHOUT CURB AND GUTTER.
3. THE NEAREST POINT OF ANY DRIVEWAY APRON EXTENSIONS SHALL NOT BE LOCATED WITHIN 25' OF THE POINT OF CURVATURE OF CURB AND GUTTER AT THE INTERSECTION.
4. MCDOT STANDARD MC-100.01 CURB AND GUTTER MUST BE USED WITHIN THE LIMITS OF THE CIRCLE, INSIDE RADIUS AND OUTSIDE RADIUS TO THE POINT OF CURVATURE OF CURB AND GUTTER ON THE CONNECTING STREETS. USE A 1% MINIMUM GUTTER GRADE EXCEPT AROUND THE ISLAND.
5. STREET TREE PLANTINGS SHALL BE IN ACCORDANCE WITH MCDOT STANDARD MC-830.01.
6. SIDEWALKS SHALL BE PROVIDED IN ACCORDANCE WITH THE APPLICABLE ROAD STANDARDS AND STANDARD MC-112.01 FOR RESIDENTIAL SIDEWALK RAMPS. THE SIDEWALK SHALL EXTEND ALONG THE INTERSECTION TRUNCATION, ONE FOOT FROM THE PROPERTY LINE. SIDEWALK RAMPS (8 TOTAL) SHALL BE LOCATED AT THE END OF EACH CURB TANGENT ON EACH LEG OF THE INTERSECTION.

P:\DOTSTD\MC221.02 6-24-94 8:50:30 am EST

APPROVED <u>JAN 5 / 96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
 DIRECTOR, DEPT. OF TRANS.  CHIEF DIV. OF ENG. SERVICES	(Empty space for revisions)	TRAFFIC CONTROL CIRCLE RESIDENTIAL ROADS STANDARD NO. MC-221.02



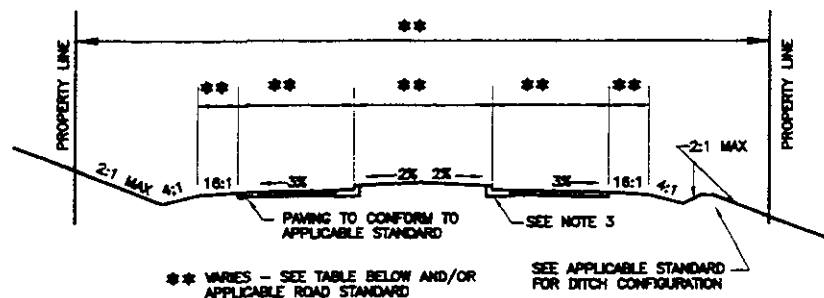
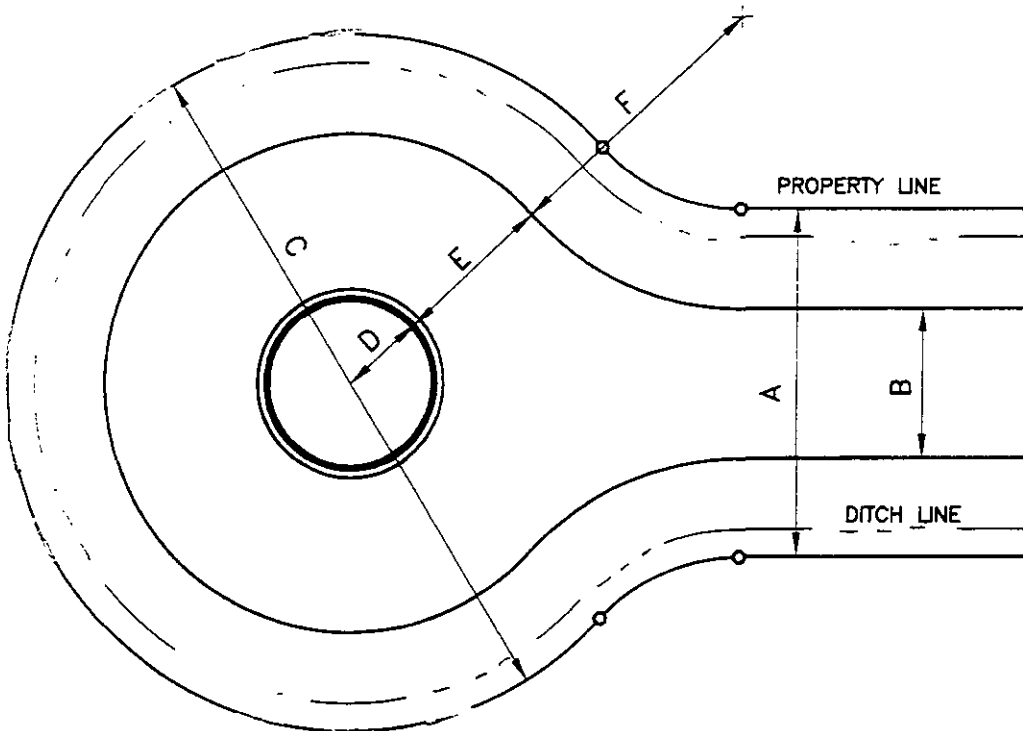
ROADWAY CLASSIFICATION	A	B	C	D	E	F
TERTIARY	27' - 4"	26' - 0"	88' - 8"	15' - 0"	28' - 0"	50' - 0"
TERTIARY	50' - 0"	26' - 0"	110' - 0"	15' - 0"	28' - 0"	50' - 0"
SECONDARY	60' - 0"	26' - 0"	120' - 0"	15' - 0"	28' - 0"	50' - 0"
PRIMARY	70' - 0"	36' - 0"	120' - 0"	15' - 0"	28' - 0"	50' - 0"
COM./INDUST.	80' - 0"	50' - 0"	150' - 0"	24' - 0"	36' - 0"	50' - 0"
COM./BUS. DIST.	80' - 0"	50' - 0"	150' - 0"	24' - 0"	36' - 0"	50' - 0"

GENERAL NOTES

1. PROVIDE 1% MINIMUM FLOWLINE GRADE. TOP OF CURB ELEVATIONS ARE REQUIRED ON PLANS FOR ALL CURB AT INTERVALS NOT TO EXCEED 50 FEET.
2. EXCEPT FOR COMMERCIAL/BUSINESS DISTRICT AND COMMERCIAL/INDUSTRIAL ROADS, THE CENTER ISLAND IS OPTIONAL DEPENDING ON PLAN APPROVAL BY MCDOT. WHERE THE ISLAND IS NOT USED, THE CENTER AREA SHALL BE PAVED TO PROVIDE A SMOOTH GRADE AND POSITIVE DRAINAGE.
3. CURB AND GUTTER AROUND ISLAND MAY BE EITHER MC-100.01 OR MC-101.01 WITH SPILL GUTTER.
4. SIDEWALKS, WHERE REQUIRED, SHALL BE LOCATED IN ACCORDANCE WITH APPLICABLE ROADWAY STANDARDS.

STANDARD NO. MC-222.01

CHIEF, DIV. OF ENG. SERVICES



ROADWAY CLASSIFICATION	A	B	C	D	E	F
SECONDARY	60' - 0"	20' - 0"	120' - 0"	16' - 0"	24' - 0"	53' - 0"
PRIMARY	70' - 0"	24' - 0"	120' - 0"	13' - 0"	24' - 0"	53' - 0"

GENERAL NOTES

1. PROVIDE 2% MINIMUM DITCH GRADE. EDGE OF PAVEMENT AND DITCH ELEVATIONS ARE REQUIRED ON PLANS AT INTERVALS NOT TO EXCEED 50 FEET.
2. THE CENTER ISLAND IS OPTIONAL. WHERE ISLAND IS NOT USED, THE CENTER AREA SHALL BE PAVED TO PROVIDE A SMOOTH GRADE AND POSITIVE DRAINAGE.
3. CURB AND GUTTER AROUND ISLAND MAY BE EITHER MC-100.01 OR MC-101.01 WITH SPILL GUTTER.

APPROVED JAN 5/96
DATE

L. J. Meets
DIRECTOR, DEPT. OF TRANS.

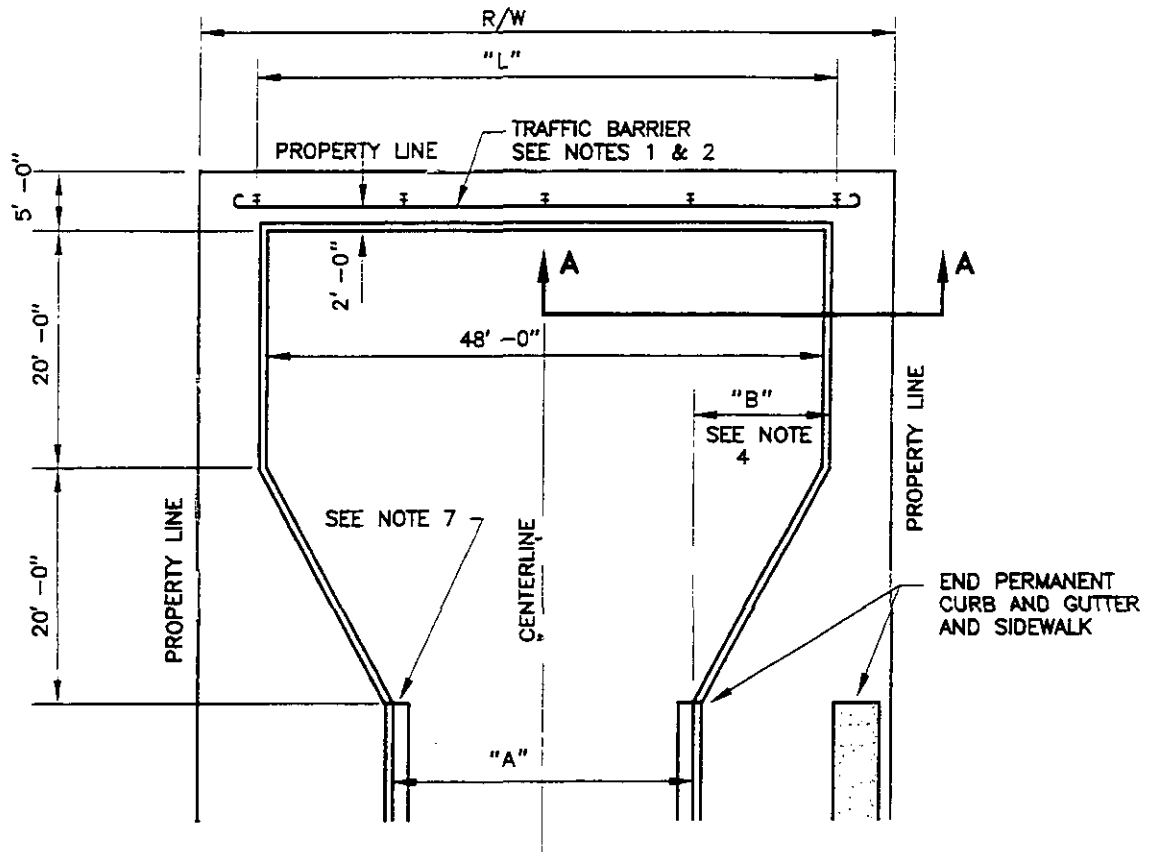
Edgely M. M. M.
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

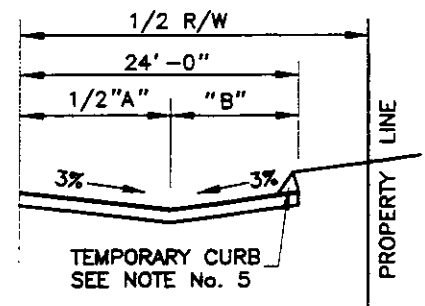
CUL-DE-SAC
OPEN SECTION ROAD

STANDARD NO. MC-222.02



ROADWAY CLASSIFICATION	R/W	A	B	L	NO. OF POSTS
TERTIARY	27'-4" *	26'-0"	11'-0"	37'-6"	4
SECONDARY	60'-0"	26'-0"	11'-0"	50'-0"	5
PRIMARY	70'-0"	36'-0"	6'-0"	62'-6"	6

* DENOTES MINIMUM



GENERAL NOTES

1. TRAFFIC BARRIER SHALL CONFORM TO M.S.H.A. STANDARD MD-660.61.
2. POST SPACING SHALL BE 12'-6". THE NUMBER OF POSTS AND LENGTH OF TRAFFIC BARRIER (C. TO C. OF END POSTS) SHALL BE AS SHOWN IN TABLE ABOVE. ADD 2'-11" TO "L" FOR TOTAL LENGTH OF TRAFFIC BARRIER.
3. PAVING SECTION THROUGH TURNAROUND SHALL CONFORM TO NORMAL ROADWAY PAVING SECTION.
4. FOR TERTIARY ROADS WITH 27'-4" RIGHT-OF-WAY, ADDITIONAL EASEMENTS BEYOND THE PUBLIC IMPROVEMENT EASEMENTS MAY BE REQUIRED.
5. TEMPORARY CURB PER MC-103.01 SHALL BE INSTALLED WHERE REQUIRED TO PROVIDE POSITIVE DRAINAGE.
6. THE INSTALLATION OF DRIVEWAY APRONS WITHIN THE LIMITS OF THE TURNAROUND SHALL BE DETERMINED AT THE PRELIMINARY PLAN STAGE AND WILL BE ALLOWED ONLY WITH THE PRIOR APPROVAL OF MCDOT.
7. WHERE TEMPORARY CURB IS NOT USED, CURB AND GUTTER END TREATMENTS SHALL CONFORM TO MC-220.01.
8. PROVIDE ADDITIONAL SLOPE AND/OR DRAINAGE EASEMENT AS REQUIRED.

SECTION "A-A"

APPROVED JAN 5/96
DATE

[Signature]
DIRECTOR, DEPT. OF TRANS.

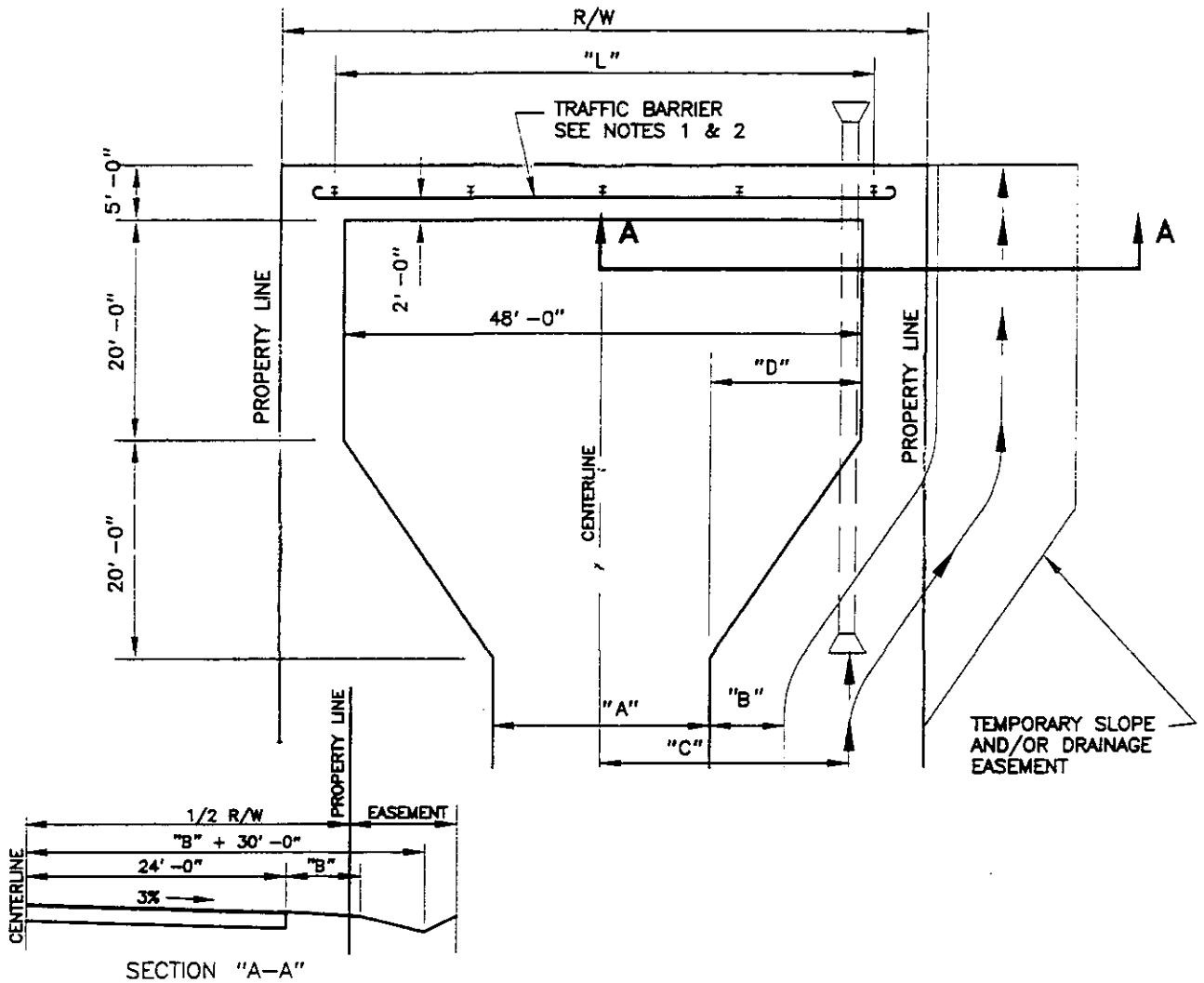
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CHIEF DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

TEMPORARY TURNAROUND
CURB AND GUTTER ROADWAY

STANDARD NO. MC-223.01



ROADWAY CLASSIFICATION	R/W	A	B	C	D	L	NO. OF POSTS
SECONDARY	60' -0"	20' -0"	7' -0"	23' -0"	14' -0"	50' -0"	5
PRIMARY	70' -0"	24' -0"	8' -0"	26' -0"	12' -0"	62' -6"	6
ARTERIAL	80' -0"	24' -0"	10' -0"	28' -0"	12' -0"	75' -0"	7

GENERAL NOTES

1. TRAFFIC BARRIER SHALL CONFORM TO M.S.H.A. STANDARD MD-660.61.
2. POST SPACING SHALL BE 12' -6". THE NUMBER OF POSTS AND LENGTH OF TRAFFIC BARRIER (C. TO C. OF END POSTS) SHALL BE AS SHOWN IN TABLE ABOVE. ADD 2' -11" TO "L" FOR TOTAL LENGTH OF TRAFFIC BARRIER.
3. PAVING SECTION THROUGH TURNAROUND SHALL CONFORM TO NORMAL ROADWAY PAVING SECTION.
4. TEMPORARY PIPE SHALL BE USED WHERE DITCH CANNOT BE WARPED AROUND TURNAROUND DUE TO RIGHT-OF-WAY LIMITATIONS AND SHALL MEET THE REQUIREMENTS OF STANDARD MC-301.03.
5. PROVIDE ADDITIONAL SLOPE AND/OR DRAINAGE EASEMENTS AS REQUIRED.
6. THE INSTALLATION OF DRIVEWAY APRONS WITHIN THE LIMITS OF THE TURNAROUND SHALL BE DETERMINED AT THE PRELIMINARY PLAN STAGE AND WILL BE ALLOWED ONLY WITH THE PRIOR APPROVAL OF MCDOT.

APPROVED JAN 5/96
DATE

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DIRECTOR, DEPT. OF TRANS.

[Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED

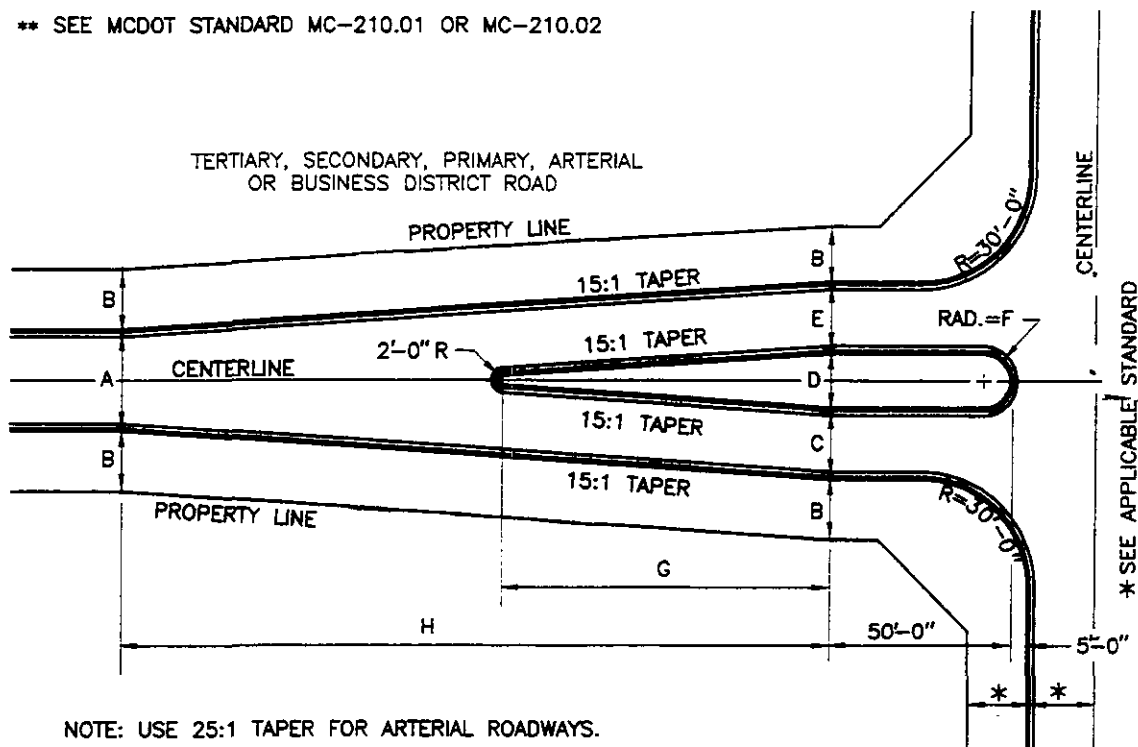
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

TEMPORARY TURNAROUND
OPEN SECTION ROADWAY

STANDARD NO. MC-223.02

ROADWAY CLASSIFICATION	A	B	C	D	E	F	G	H
TERTIARY	26'-0"	**	18'-0"	12'-0"	18'-0"	6'-0"	60'-0"	165'-0"
SECONDARY	26'-0"	17'-0"	18'-0"	16'-0"	18'-0"	8'-0"	90'-0"	195'-0"
PRIMARY	36'-0"	17'-0"	26'-0"	20'-0"	18'-0"	10'-0"	120'-0"	270'-0"
ARTERIAL	50'-0"	15'-0"	26'-0"	20'-0"	24'-0"	10'-0"	200'-0"	275'-0"
BUSINESS	50'-0"	15'-0"	26'-0"	20'-0"	24'-0"	10'-0"	120'-0"	165'-0"

** SEE MCDOT STANDARD MC-210.01 OR MC-210.02



NOTE: USE 25:1 TAPER FOR ARTERIAL ROADWAYS.

GENERAL NOTES

1. THIS STANDARD IS APPLICABLE TO INTERSECTIONS OF TERTIARY, SECONDARY, PRIMARY, ARTERIAL OR BUSINESS DISTRICT ROADS WITH OTHER ROADS HAVING THE SAME OR HIGHER CLASSIFICATION.
2. IN ALL CASES, THE MEDIAN SHALL BE CONSTRUCTED WITH MCDOT STANDARD MC-100.01 CONCRETE CURB AND GUTTER.
3. STREET TREE PLANTINGS SHALL BE IN ACCORDANCE WITH MCDOT STANDARD MC-700.01.
4. SIDEWALKS SHALL BE PROVIDED IN ACCORDANCE WITH THE APPLICABLE ROAD AND SIDEWALK RAMP STANDARDS. THE SIDEWALK SHALL EXTEND ALONG THE INTERSECTION TRUNCATION, ONE FOOT FROM THE PROPERTY LINE.
5. WHERE EITHER ROAD IS OPEN SECTION, REFER TO THOSE APPLICABLE STANDARDS. THE FINAL CONFIGURATION FOR OPEN SECTION ROADS SHALL BE SUBJECT TO MCDOT APPROVAL ON A CASE BY CASE BASIS.

APPROVED JAN 5/96
DATE

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DIRECTOR, DEPT. OF TRANS.

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CHIEF, DIV. OF ENG. SERVICES

REVISED

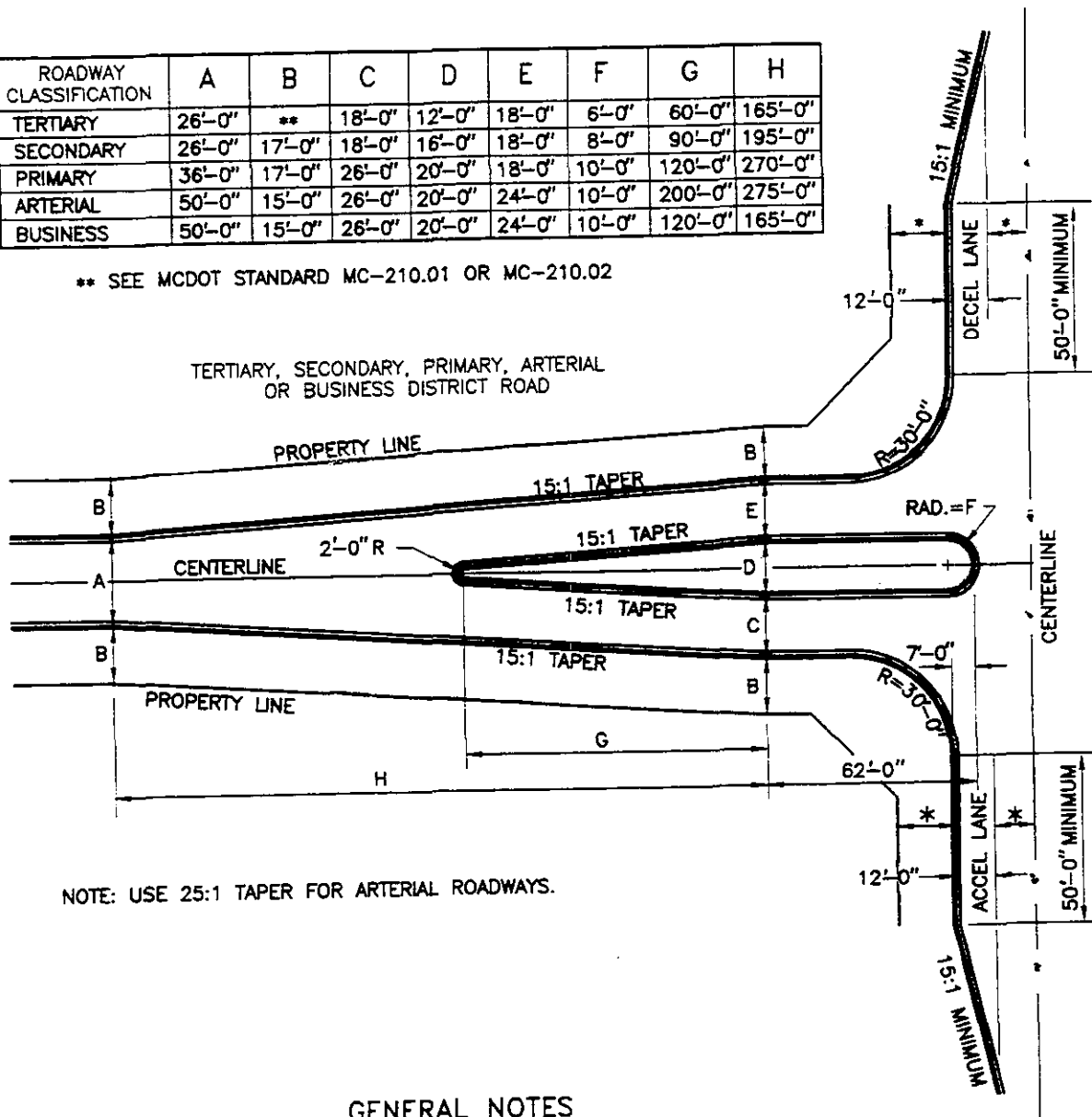
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

MONUMENTAL ENTRANCE

STANDARD NO. MC-224.01

ROADWAY CLASSIFICATION	A	B	C	D	E	F	G	H
TERTIARY	26'-0"	**	18'-0"	12'-0"	18'-0"	6'-0"	60'-0"	165'-0"
SECONDARY	26'-0"	17'-0"	18'-0"	16'-0"	18'-0"	8'-0"	90'-0"	195'-0"
PRIMARY	36'-0"	17'-0"	26'-0"	20'-0"	18'-0"	10'-0"	120'-0"	270'-0"
ARTERIAL	50'-0"	15'-0"	26'-0"	20'-0"	24'-0"	10'-0"	200'-0"	275'-0"
BUSINESS	50'-0"	15'-0"	26'-0"	20'-0"	24'-0"	10'-0"	120'-0"	165'-0"

** SEE MCDOT STANDARD MC-210.01 OR MC-210.02



* SEE APPLICABLE STANDARD

GENERAL NOTES

1. THIS STANDARD IS APPLICABLE TO INTERSECTIONS OF TERTIARY, SECONDARY, PRIMARY, ARTERIAL OR BUSINESS DISTRICT ROADS WITH OTHER ROADS HAVING THE SAME OR HIGHER CLASSIFICATION.
2. IN ALL CASES, THE MEDIAN SHALL BE CONSTRUCTED WITH MCDOT STANDARD MC-100.01 CONCRETE CURB AND GUTTER.
3. STREET TREE PLANTINGS SHALL BE IN ACCORDANCE WITH MCDOT STANDARD MC-700.01
4. SIDEWALKS SHALL BE PROVIDED IN ACCORDANCE WITH THE APPLICABLE ROAD AND SIDEWALK RAMP STANDARDS. THE SIDEWALK SHALL EXTEND ALONG THE INTERSECTION TRUNCATION, ONE FOOT FROM THE PROPERTY LINE.
5. WHERE EITHER ROAD IS OPEN SECTION, REFER TO THE OTHER APPLICABLE STANDARDS. THE FINAL CONFIGURATION FOR OPEN SECTION ROADS SHALL BE SUBJECT TO MCDOT APPROVAL ON A CASE BY CASE BASIS.
6. THE USE OF ACCELERATION/DECELERATION LANES AND THEIR APPROPRIATE LENGTH SHALL BE DETERMINED BY THE DIVISION OF TRAFFIC ENGINEERING ON A CASE BY CASE BASIS.

APPROVED JAN 5/96
DATE

Lady H. Cook
DIRECTOR, DEPT. OF TRANS.

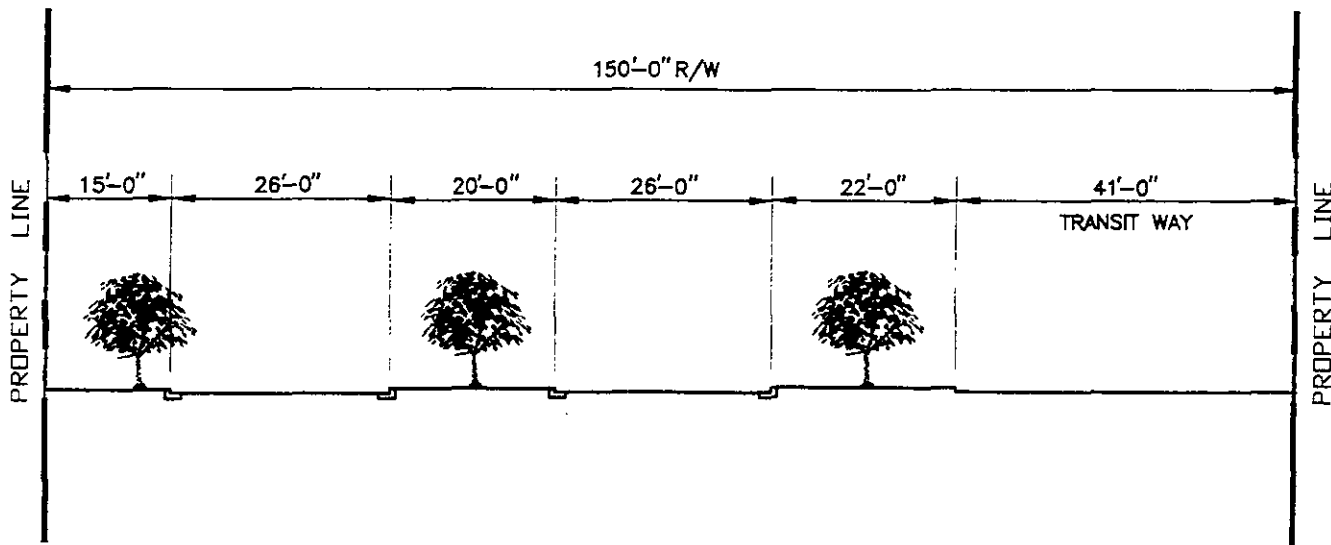
Edgar H. Cook
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

MONUMENTAL ENTRANCE
WITH ACCEL./DECEL. LANES

STANDARD NO. MC-224.02



EDGE TRANSIT WAY

NOTES:

1. TRANSIT WAY DESIGNATED FOR EXCLUSIVE USE BY TRANSIT INCLUDING HEAVY OR LIGHT RAIL VEHICLES AND BUSES.

P:\DOT\STDA\MC22501 12-5-94 101530 am EST

APPROVED JAN 5/95
DATE

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DIRECTOR, DEPT. OF TRANS.

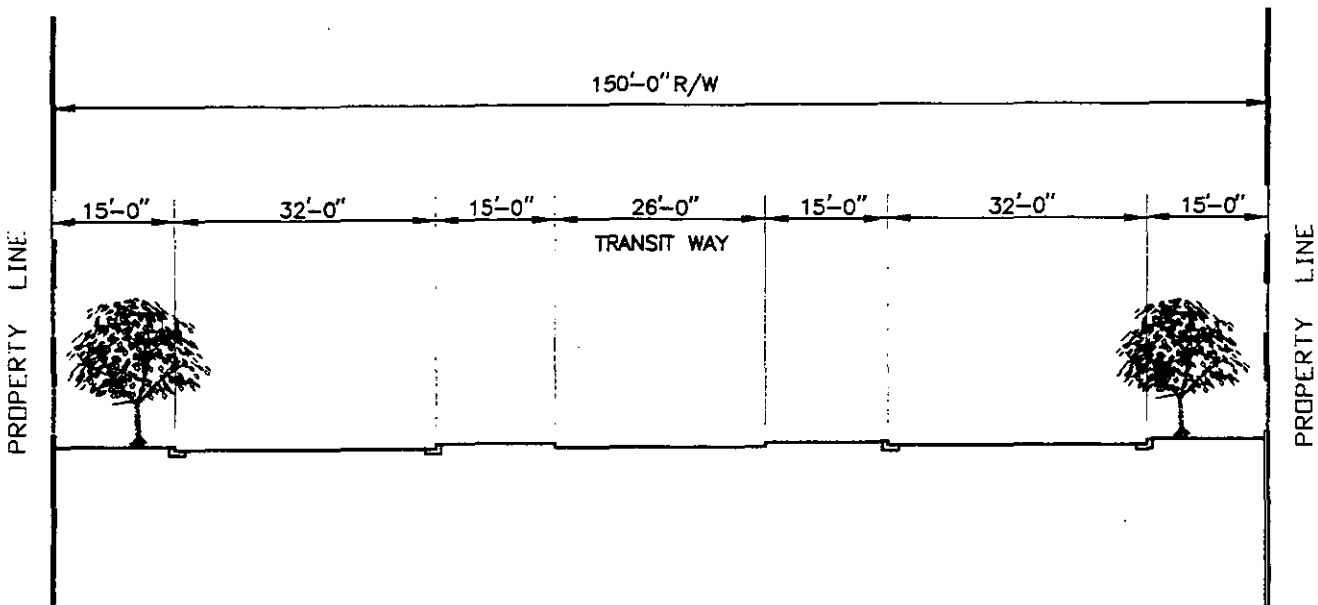
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CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

EDGE - TRANSIT WAY
150' RIGHT OF WAY

STANDARD NO. MC-225.01



MEDIAN TRANSIT WAY

NOTES:

1. TRANSIT WAY DESIGNATED FOR EXCLUSIVE USE BY TRANSIT INCLUDING HEAVY OR LIGHT RAIL VEHICLES AND BUSES.

P:\DOT\STB\MC22501 12-5-94 101530 am EST

APPROVED JAN 5/95
DATE

Emily Moore
DIRECTOR, DEPT. OF TRANS.

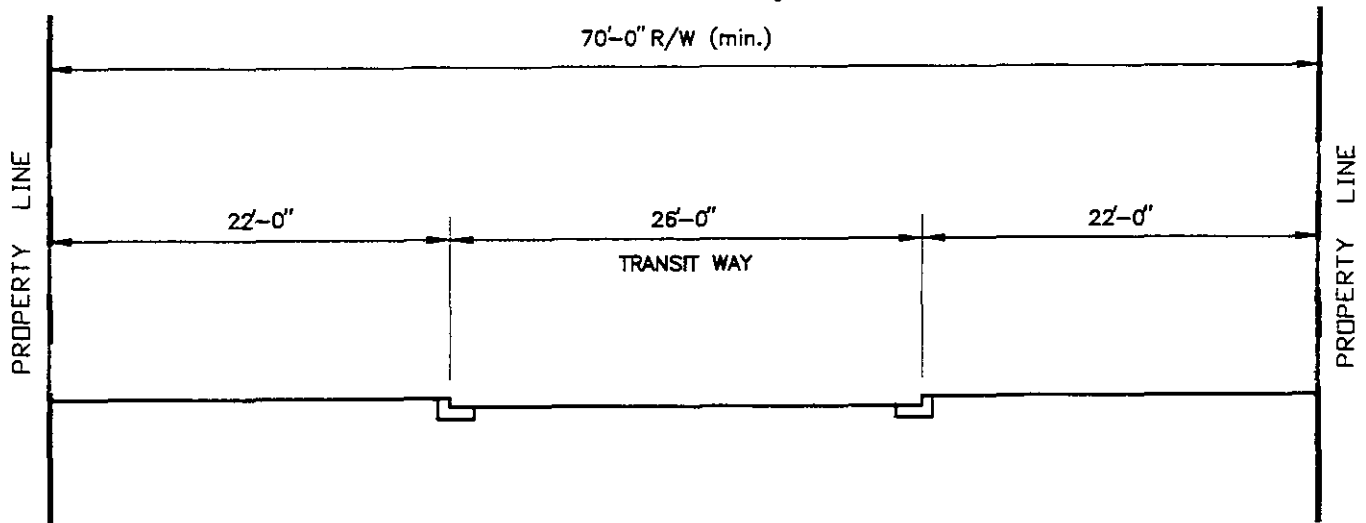
Edgar Brock
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

MEDIAN TRANSIT WAY
150' RIGHT OF WAY

STANDARD NO. MC-225.02



EXCLUSIVE TRANSIT WAY

NOTES:

1. TRANSIT WAY DESIGNATED FOR EXCLUSIVE USE BY TRANSIT INCLUDING HEAVY OR LIGHT RAIL VEHICLES AND BUSES.

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APPROVED JAN 5/96
DATE

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DIRECTOR, DEPT. OF TRANS.

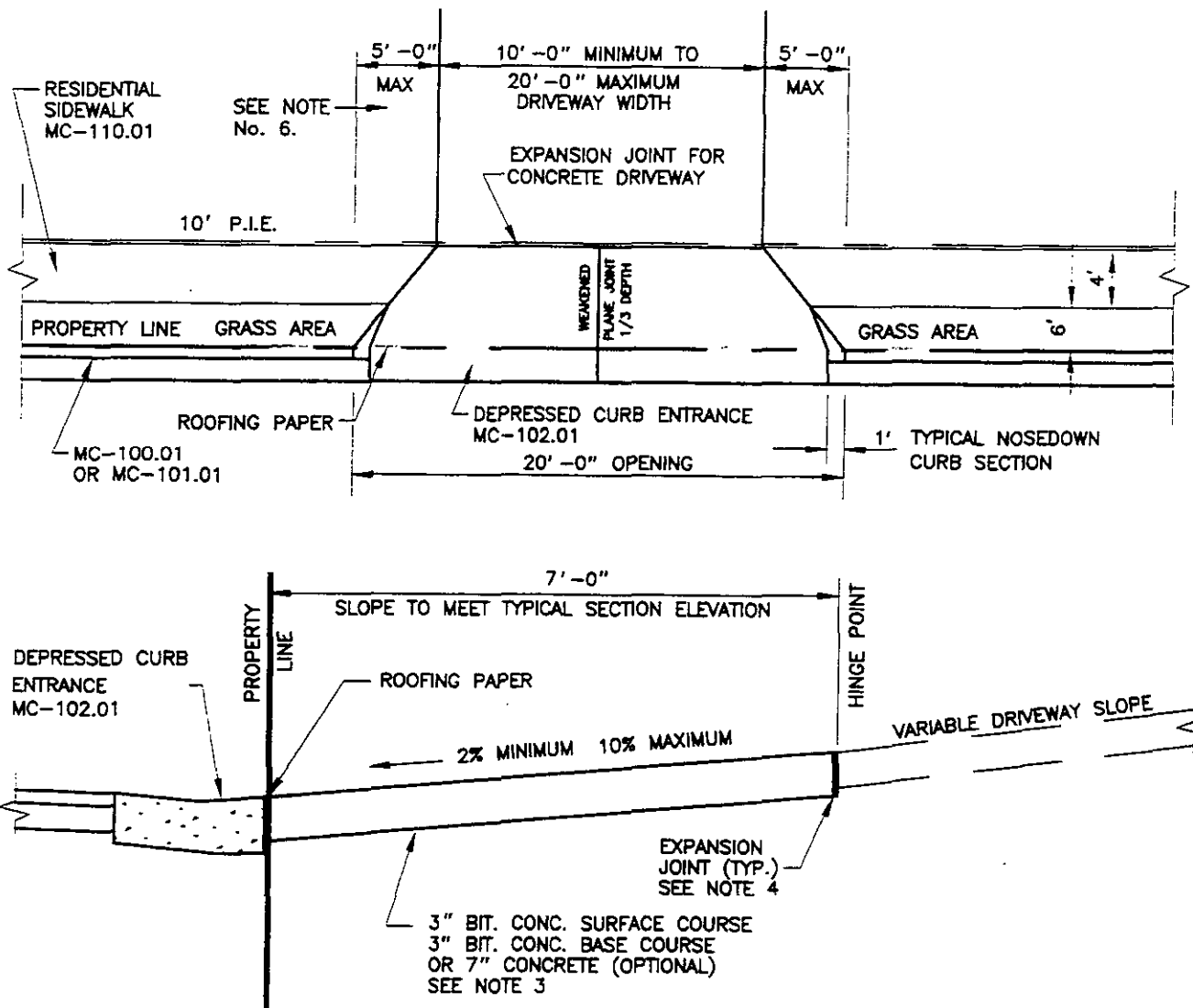
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CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

EXCLUSIVE TRANSIT WAY
70' RIGHT OF WAY

STANDARD NO. MC-225.03



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY APRON TO BE MAINTAINED BY PROPERTY OWNER.
3. CONCRETE APRONS SHALL BE USED WHEN CONCRETE SIDEWALK IS CONSTRUCTED.
4. CONCRETE APRONS SHALL BE SEVEN INCH MINIMUM THICKNESS WITH EXPANSION/CONTRACTION JOINTS PER MC-301.01.
5. THIS STANDARD SHALL BE USED WITH MC-101.01 OR MC-102.01 CURB AND GUTTER ONLY.
6. WINGS CAN VARY 0' TO 5', HOWEVER THEY MUST BE SYMETRICAL ON BOTH SIDES.
7. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH FS TT-S-00227

APPROVED JAN 5/95
DATE

Larry M. [Signature]
DIRECTOR, DEPT. OF TRANS.

Ed [Signature]
CHIEF, DIV. OF ENG. SERVICES

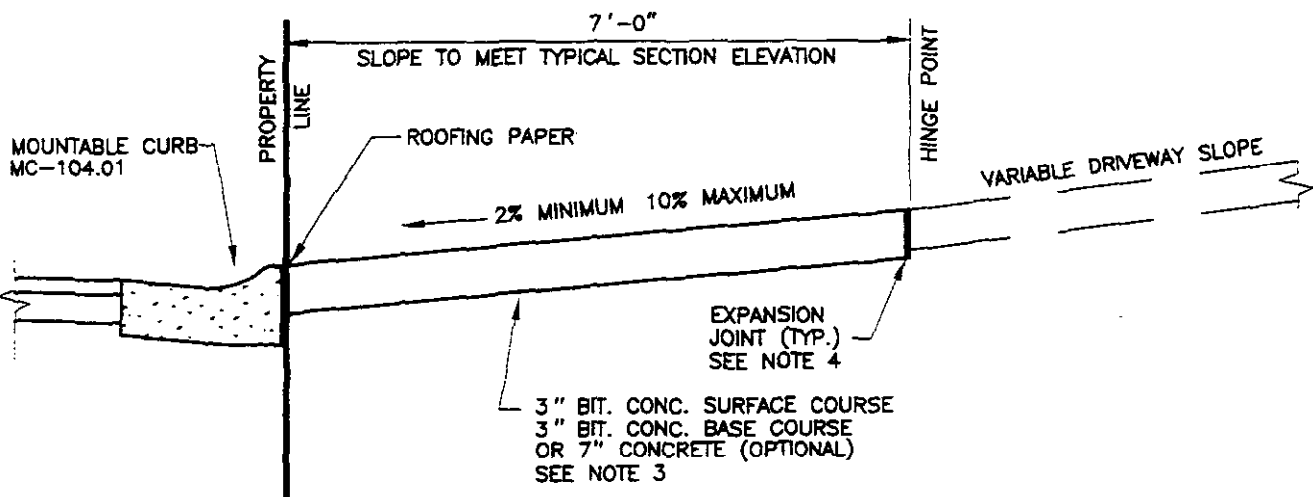
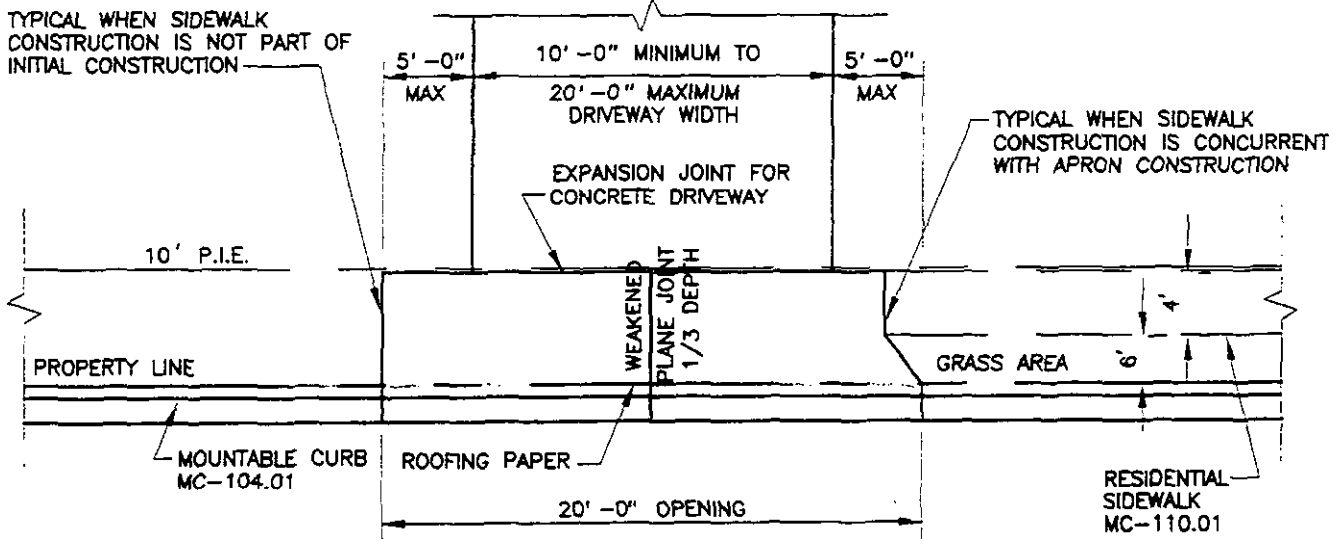
REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

TERTIARY DRIVEWAY

STANDARD NO. MC-300.01

TYPICAL WHEN SIDEWALK
CONSTRUCTION IS NOT PART OF
INITIAL CONSTRUCTION



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY AND DRIVEWAY APRON TO BE MAINTAINED BY PROPERTY OWNER.
3. CONCRETE APRONS SHALL BE USED WHEN CONCRETE SIDEWALK IS CONSTRUCTED.
4. CONCRETE APRONS SHALL BE SEVEN INCH MINIMUM THICKNESS WITH EXPANSION/CONTRACTION JOINTS PER MC-301.01.
5. THIS STANDARD SHALL BE USED WITH MC-104.01 MOUNTABLE CURB ONLY.
6. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH FS TT-S-00227.

APPROVED JAN 5/96
DATE

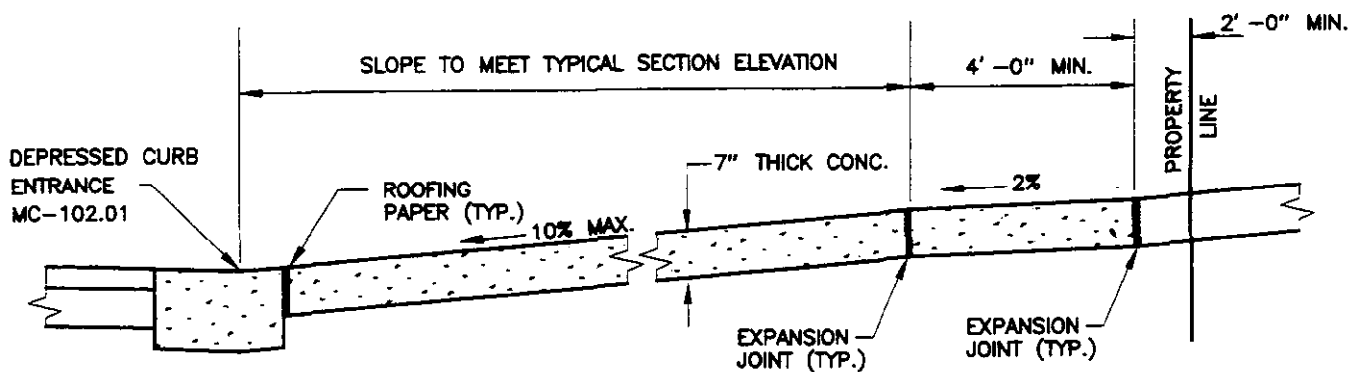
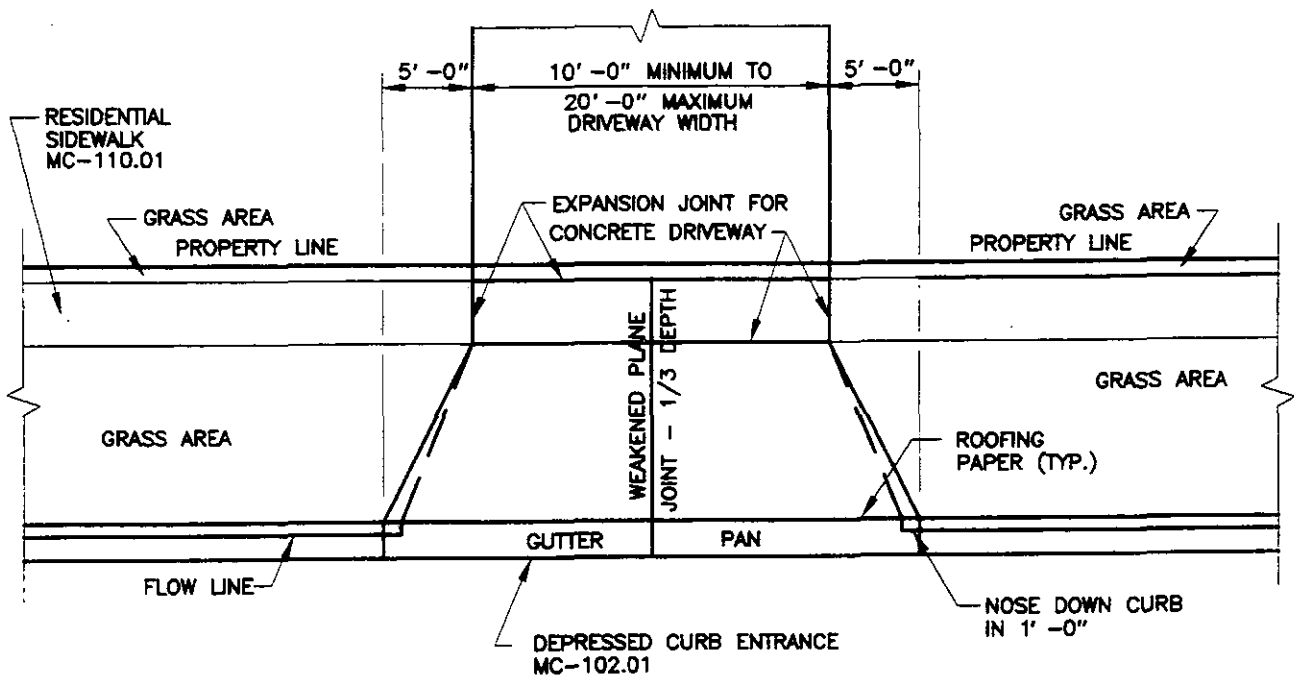
Edgar M. ...
DIRECTOR, DEPT. OF TRANS.
Edgar M. ...
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

TERTIARY DRIVEWAY
WITH MOUNTABLE CURB

STANDARD NO. MC-300.02



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY AND DRIVEWAY APRON TO BE MAINTAINED BY PROPERTY OWNER.
3. PROVIDE WEAKENED PLANE JOINTS AT MAXIMUM INTERVALS OF 15'.
4. THE EXPANSION JOINTS SHALL BE PLACED AT LOCATIONS SHOWN.
5. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT, COMPLYING WITH FS TT-S-00227.

P:\DOTSTD\MC301.01 6-24-94 9:29:38 am EST

APPROVED JAN 5/95
DATE

Edy Moore
DIRECTOR, DEPT. OF TRANS.

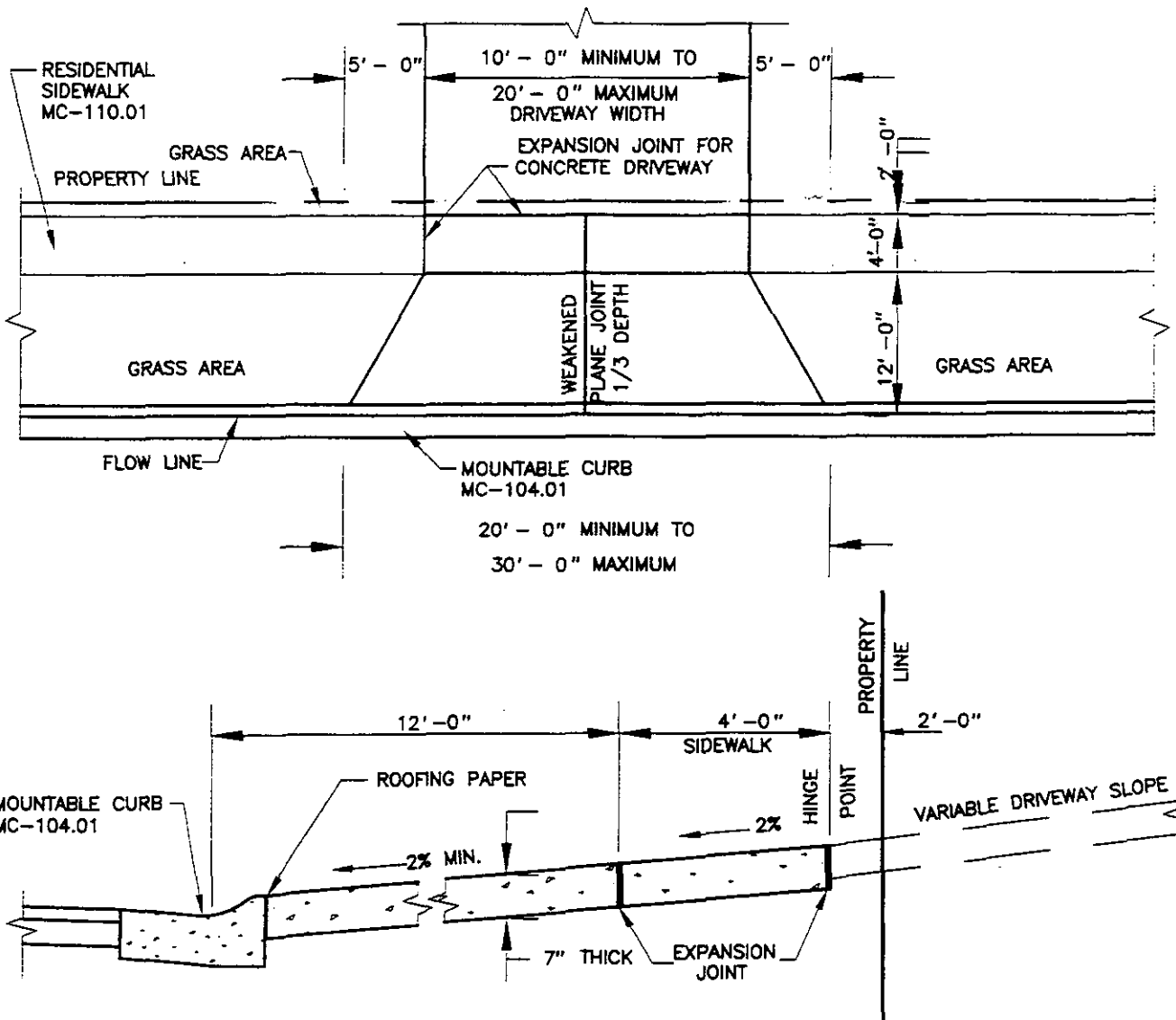
Edy Moore
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

RESIDENTIAL DRIVEWAY

STANDARD NO. MC-301.01



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY AND DRIVEWAY APRON TO BE MAINTAINED BY PROPERTY OWNER.
3. REFER TO MC-301.01 FOR DETAILS ON EXPANSION/CONTRACTION JOINTS.
4. THIS STANDARD SHALL BE USED WITH MC-104.01 MOUNTABLE CURB ON SECONDARY CUL-DE-SACS ONLY.
5. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT, COMPLYING WITH FS TT-S-00227.

APPROVED JAN 5/96
DATE

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DIRECTOR, DEPT. OF TRANS.

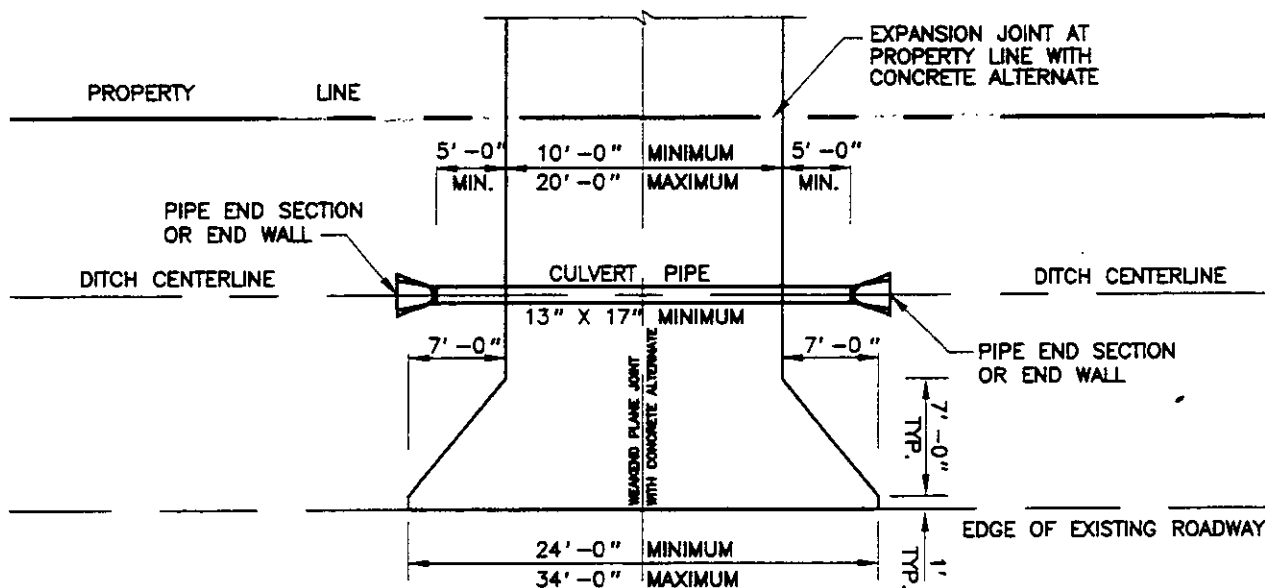
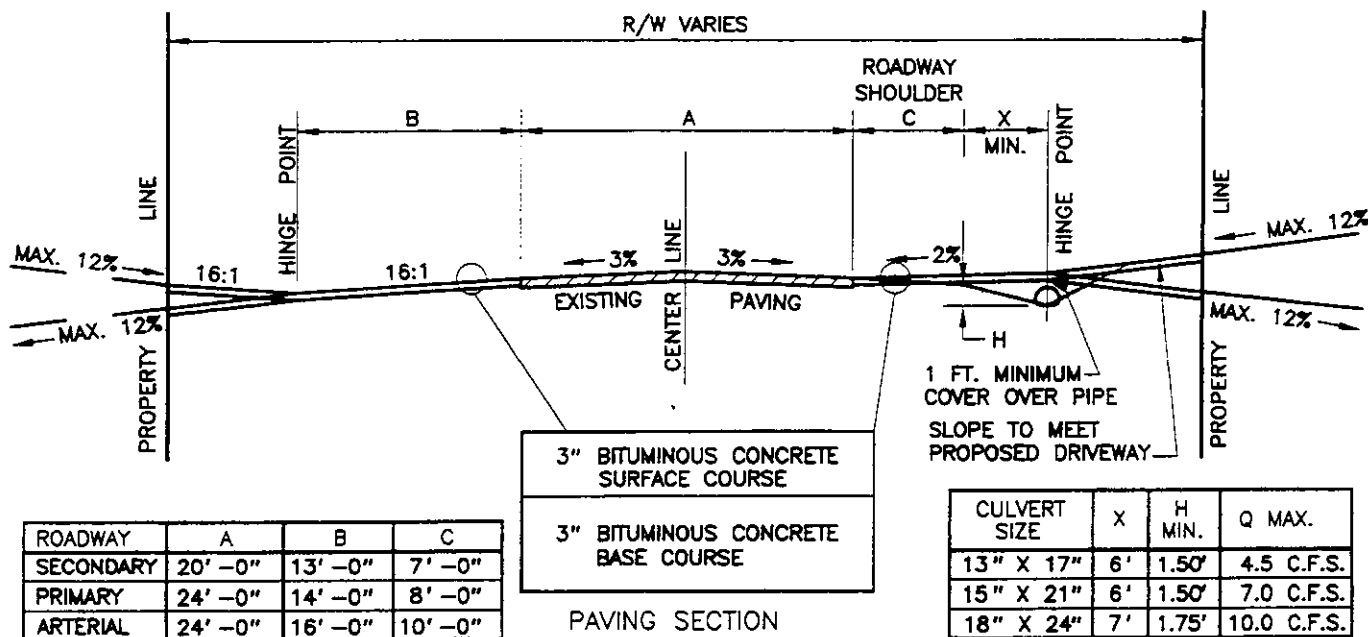
[Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

RESIDENTIAL DRIVEWAY
WITH MOUNTABLE CURB

STANDARD NO. MC-301.02



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY AND DRIVEWAY APRON TO BE MAINTAINED BY PROPERTY OWNER.
3. DITCH IS TO BE DESIGNED FOR A MAXIMUM Q. OF 12 C.F.S., A MAXIMUM V. OF 5 F.P.S. AND A DEPTH OF FLOW OF ONE FOOT. DEPTH OF FLOW MAY EXCEED ONE FOOT FOR CULVERT APPROACH HEAD REQUIREMENTS, WITH A MAXIMUM ALLOWABLE OF 6" ABOVE THE CROWN OF PIPE.
4. END SECTIONS ARE TO BE FASTENED TO THE FIRST CORRUGATION AND FITTED TO FORM A TIGHT CONNECTION. THE PIPE SHALL NOT PROJECT INTO THE END SECTION.
5. SPECIAL CARE MUST BE TAKEN TO PROVIDE PROPER COMPACTION OF BACKFILL AROUND THE CULVERT PIPE AND THE END SECTION.

APPROVED JAN 5/95
DATE

[Signature]
DIRECTOR, DEPT. OF TRANS.

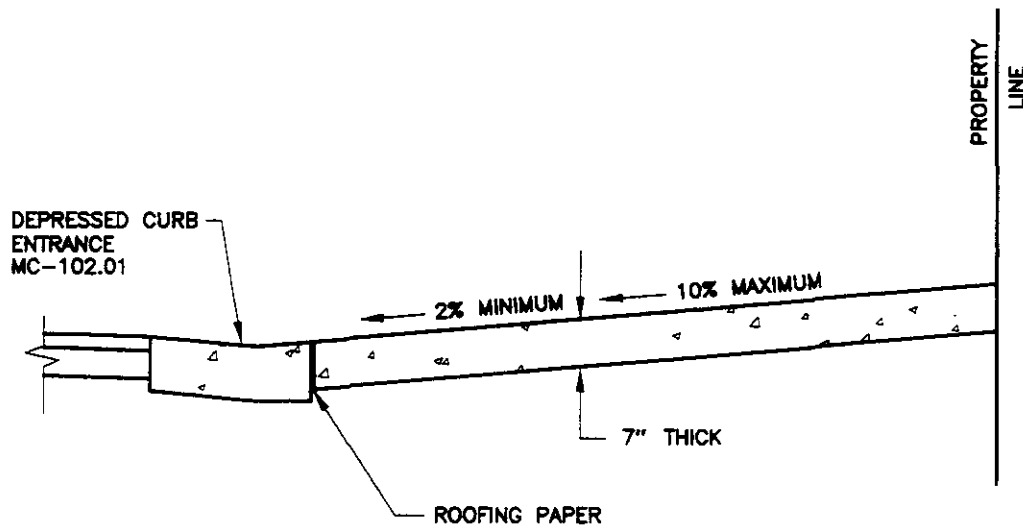
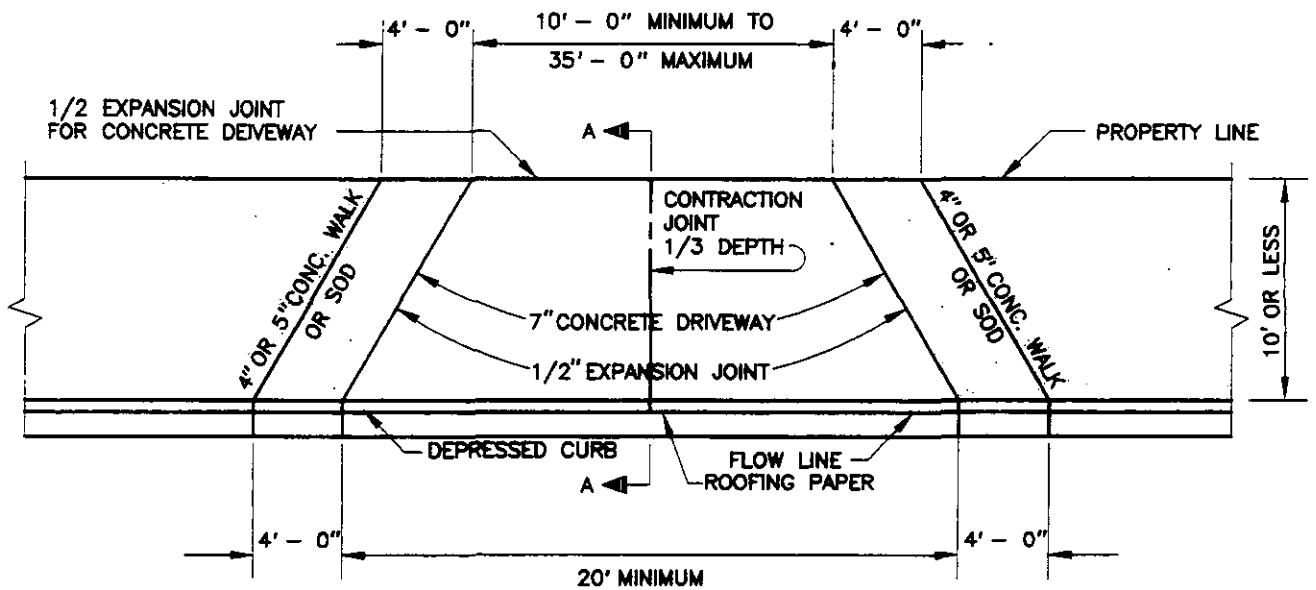
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CHIEF DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

RESIDENTIAL DRIVEWAY
OPEN SECTION ROAD

STANDARD NO. MC-301.03



SECTION A - A

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY AND DRIVEWAY APRON TO BE MAINTAINED BY PROPERTY OWNER.
3. ALL DRIVEWAYS DEPRESSED 2" AT PROPERTY LINE WHEN USING 8" CURB.
4. PROVIDE WEAKENED PLANE JOINTS AT MAXIMUM INTERVALS OF 15'.

APPROVED JAN 5/95
DATE

John M. [Signature]
DIRECTOR, DEPT. OF TRANS.

Edgar [Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

RESIDENTIAL DRIVEWAY
LIMITED WIDTH

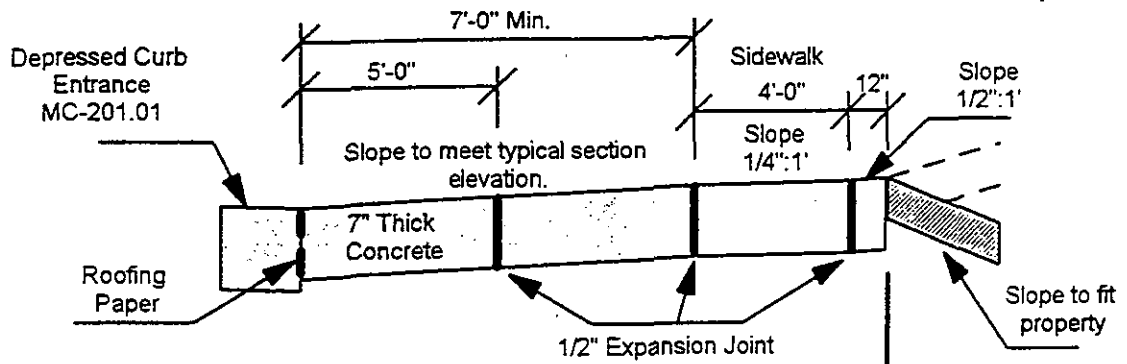
STANDARD NO. MC-301.04

MONTGOMERY
COUNTY
MARYLAND

APPROVED: AUGUST 15, 1950
Revised: June 1998

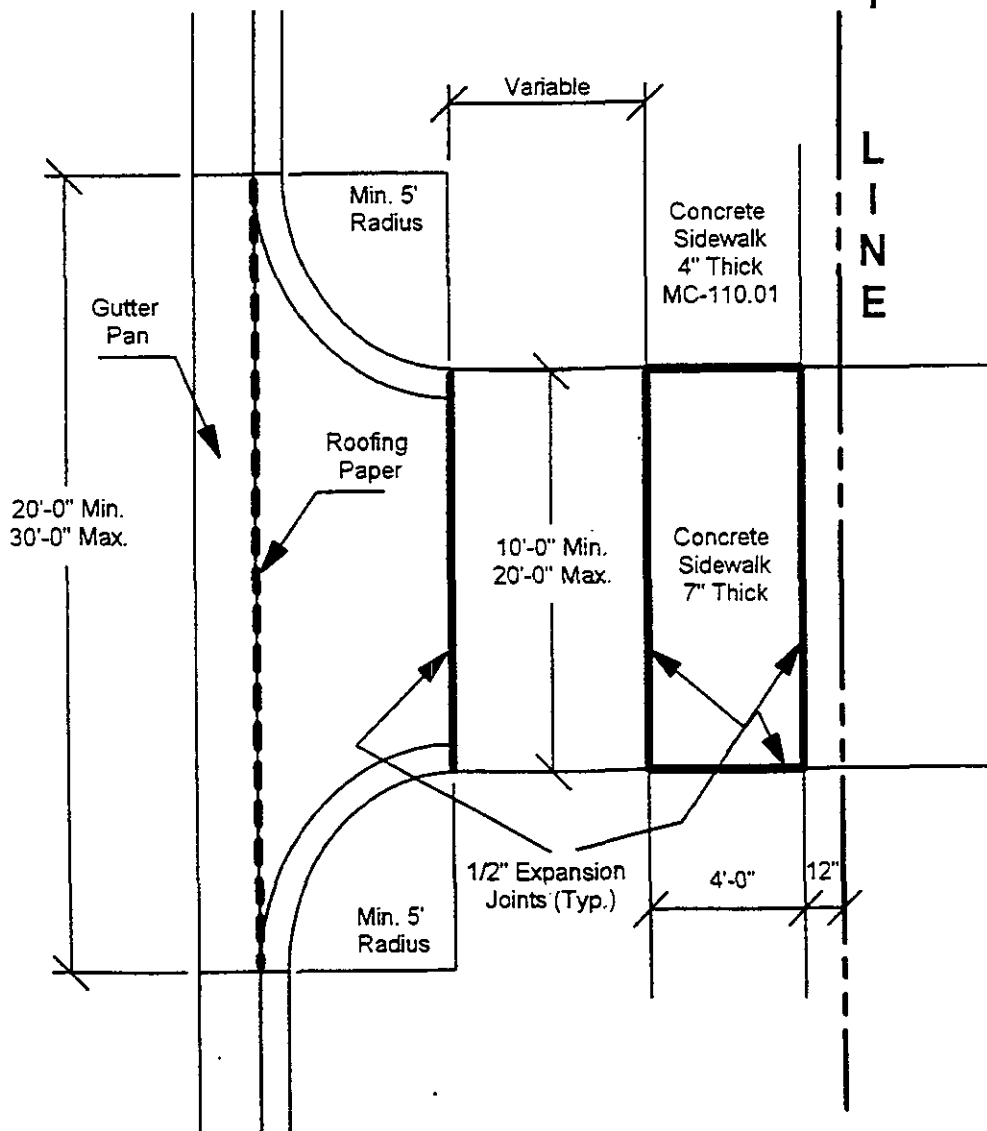
RESIDENTIAL DRIVEWAY

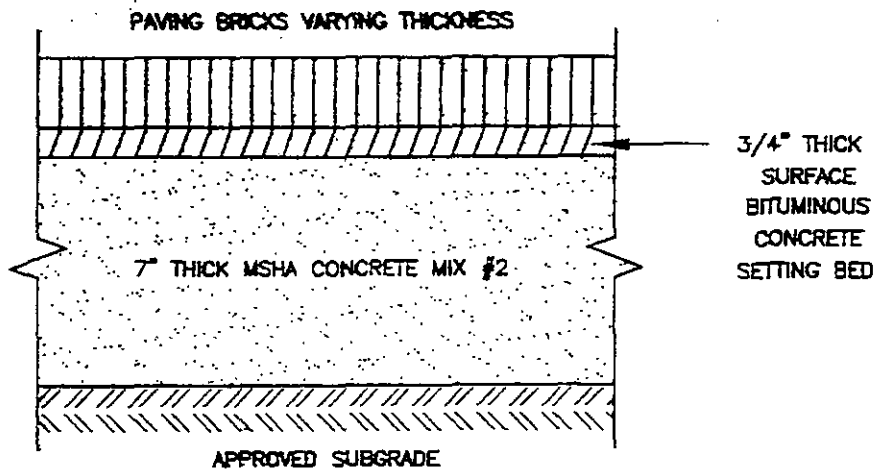
DESIGN
STANDARD
MC-301.05



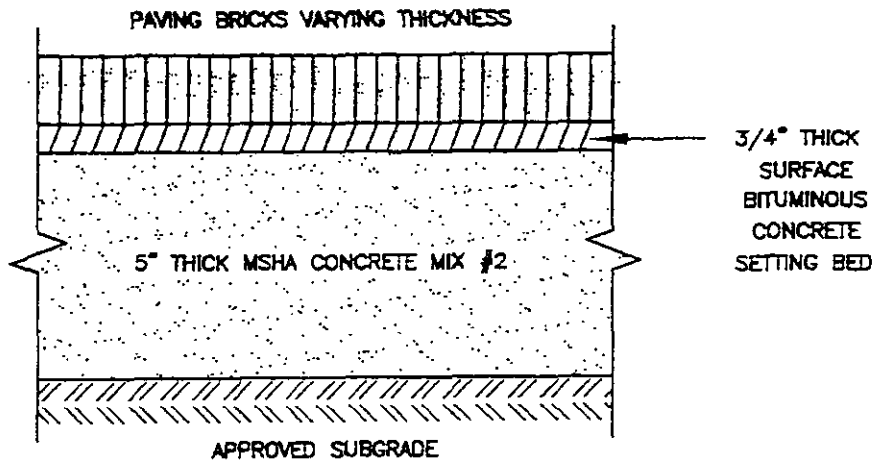
GENERAL NOTES

1. Refer to Maryland State Highway Administration Specifications for Materials and Methods of Construction.
2. Driveway and driveway apron to be maintained by property owner.
3. The expansion joints shall be placed at locations shown.
4. Expansion joint material shall be 1/2 inch preformed cork, trimmed and sealed with non-staining, two component polysulfide or polyurethane elastomeric type sealant, complying with FS TT-S-00227.





COMMERCIAL AND MULTI-FAMILY DRIVEWAY



RESIDENTIAL DRIVEWAY

GENERAL NOTES

1. BRICK PAVERS ARE TO BE APPROVED BY THE COUNTY FIELD INSPECTOR.
2. PAVERS TO BE HELD IN PLACE BY EDGING APPROVED BY THE COUNTY FIELD INSPECTOR.
3. IN NEIGHBORHOODS WHERE COUNTY SIDEWALK IS PRESENT PROVIDE A CONCRETE SIDEWALK SECTION THROUGH THE APRON AS DIRECTED BY THE COUNTY FIELD INSPECTOR.

APPROVED 3 May '01
DATE


DIRECTOR, DEPT. OF PUBLIC
WORKS & TRANSPORTATION

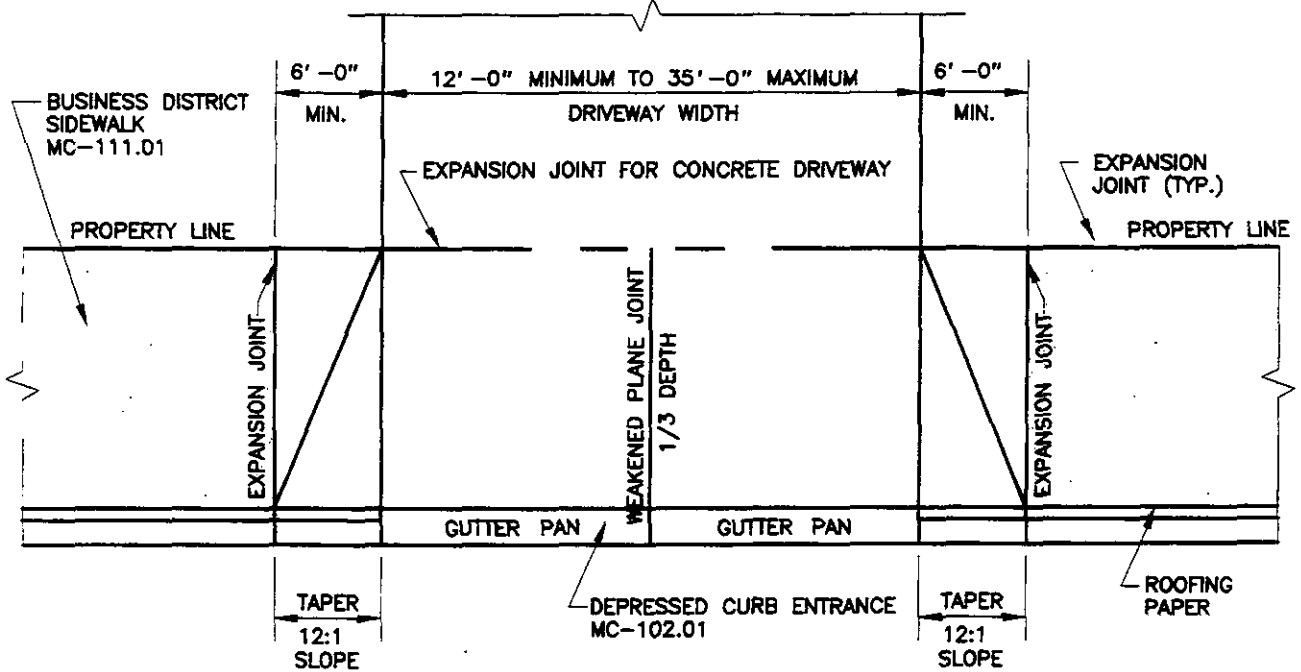

CHIEF, DIV. OF ENG. SERVICES

REVISED

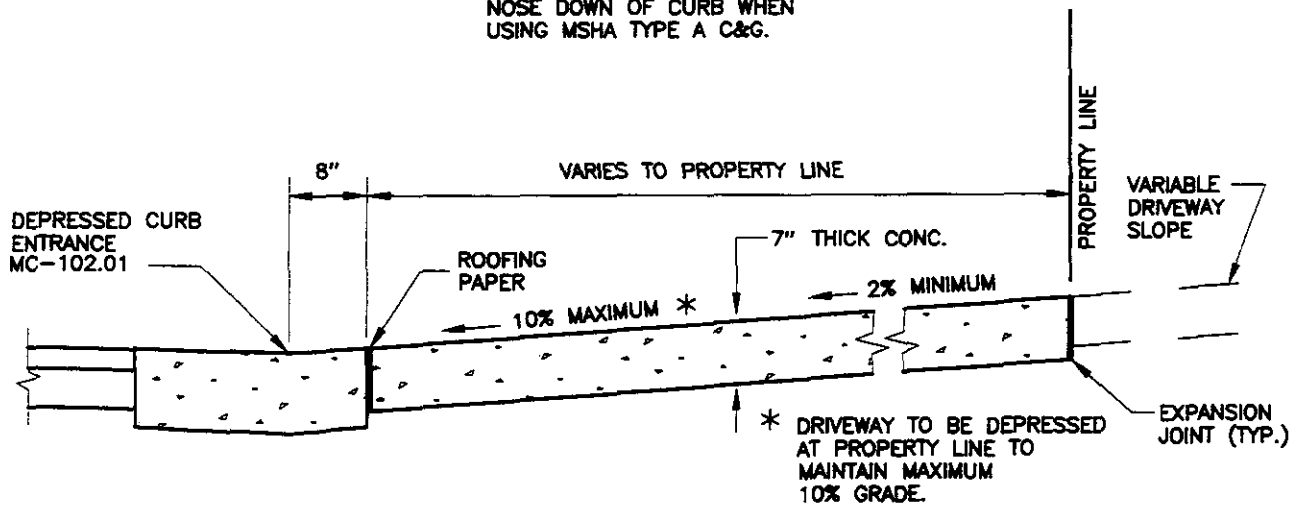
MONTGOMERY COUNTY
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

BRICK PAVER DRIVEWAY

STANDARD NO. MC-301.06



NOTE:
MAINTAIN 12:1 SLOPE FOR
NOSE DOWN OF CURB WHEN
USING MSHA TYPE A C&G.



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY APRON TO BE MAINTAINED BY MCDOT DIVISION OF PUBLIC WORKS.
3. PROVIDE WEAKENED PLANE JOINTS AT MAXIMUM INTERVALS OF 15'.
4. THE EXPANSION JOINTS SHALL BE PLACED AT LOCATIONS SHOWN.
5. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT, COMPLYING WITH FS TT-S-00227.

APPROVED JAN 5 / 96
DATE

Leahy D. Decker
DIRECTOR, DEPT. OF TRANS.

Edgumorek
CHIEF, DIV. OF ENG. SERVICES

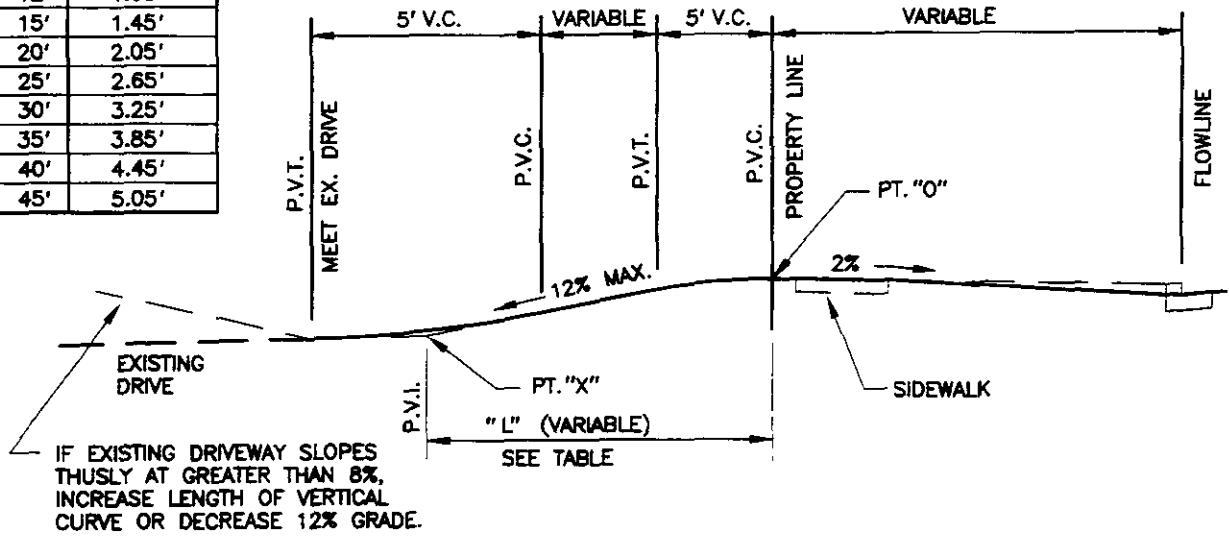
REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

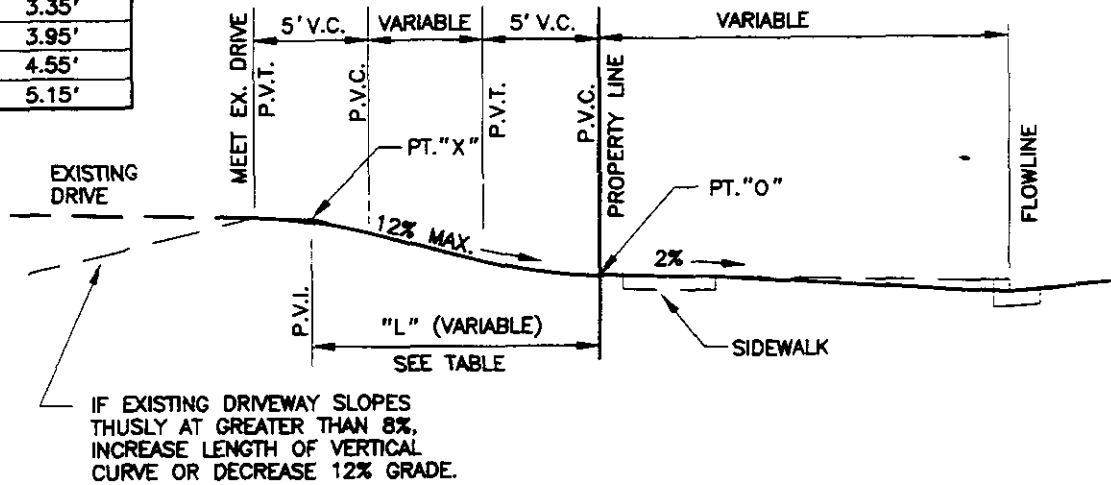
COMMERCIAL DRIVEWAY

STANDARD NO. MC-302.01

L	DIFF. IN ELEV. BTWN. PT. "O" AND PT. "X"
10'	0.85'
12'	1.09'
15'	1.45'
20'	2.05'
25'	2.65'
30'	3.25'
35'	3.85'
40'	4.45'
45'	5.05'



L	DIFF. IN ELEV. BTWN. PT. "O" AND PT. "X"
10'	0.95'
12'	1.19'
15'	1.55'
20'	2.15'
25'	2.75'
30'	3.35'
35'	3.95'
40'	4.55'
45'	5.15'



P:\DOT\STD\NC30301 9-29-95 6:46:22 am EST

APPROVED JAN 5/96
DATE

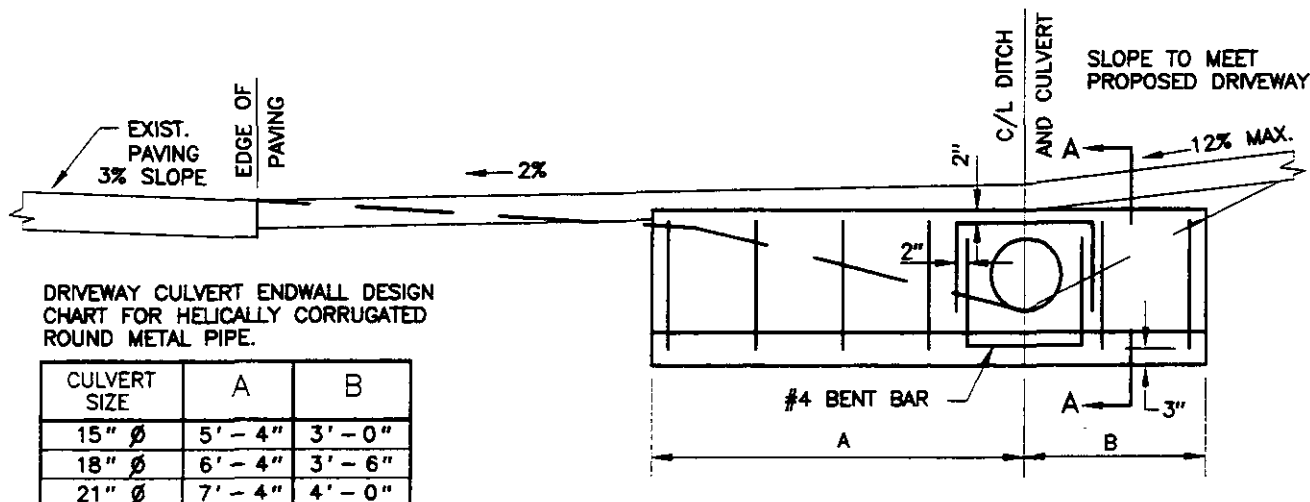
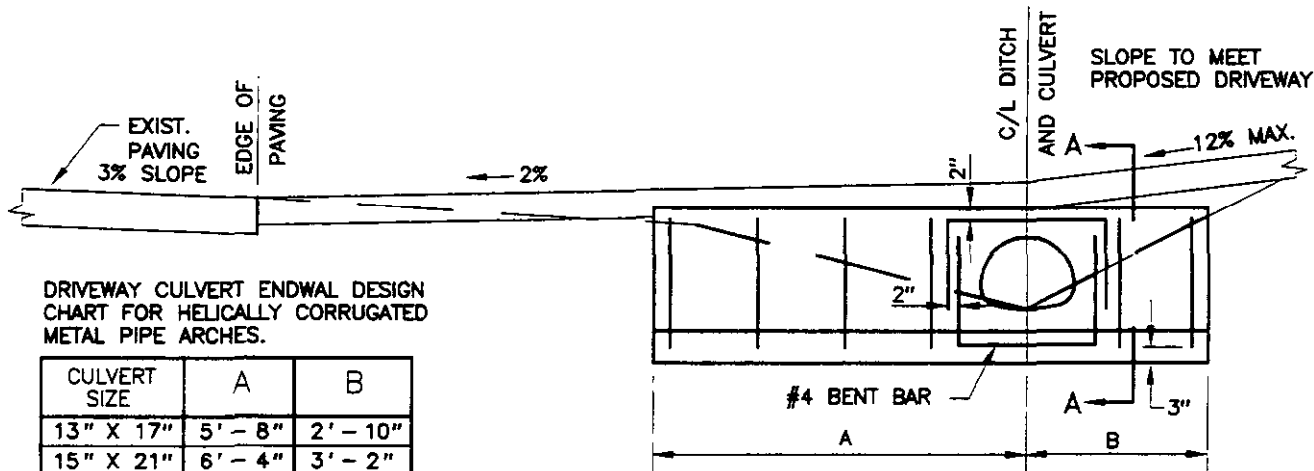
[Signature]
DIRECTOR, DEPT. OF TRANS.
[Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED

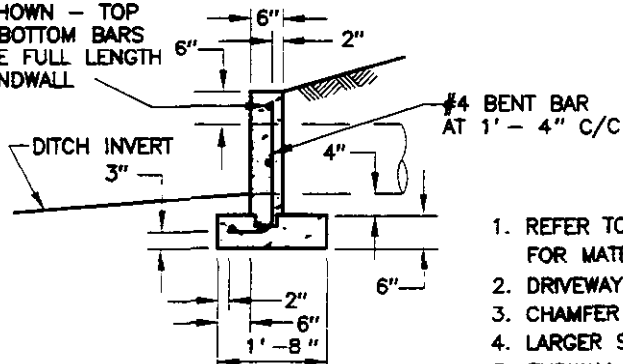
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

METHODS OF
TRANSITIONING DRIVEWAYS

STANDARD NO. MC-303.01



#4 STRAIGHT BARS
HORIZONTALLY SPACED
AS SHOWN - TOP
AND BOTTOM BARS
TO BE FULL LENGTH
OF ENDWALL



SECTION A-A

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY TO BE MAINTAINED BY PROPERTY OWNER.
3. CHAMFER ALL EXPOSED EDGES 3/4" X 3/4".
4. LARGER SIZE PIPES REQUIRE SPECIAL ENDWALL DESIGN.
5. ENDWALL MAY BE CONSTRUCTED OF REINFORCED CONCRETE, AS SHOWN, OR NON-REINFORCED MASONRY WITH AN 8 INCH WALL THICKNESS ON CONCRETE FOOTING AS SHOWN.

APPROVED JAN 5/95
DATE

Ruby Moore
DIRECTOR, DERT. OF TRANS.

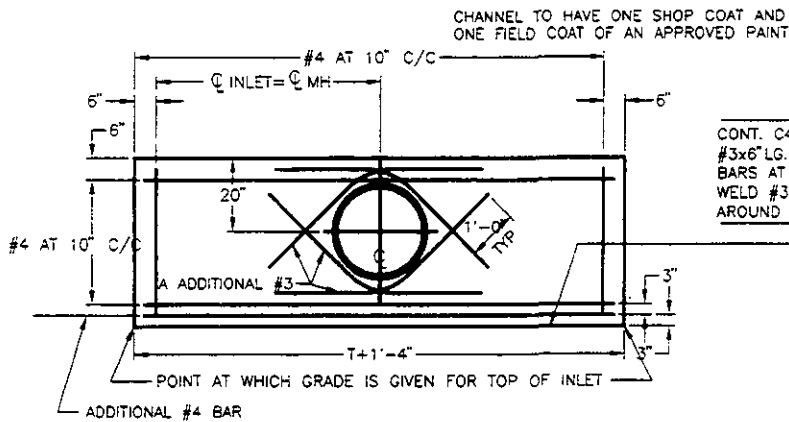
Edgar Fox
CHIEF, DIV. OF ENG. SERVICES

REVISED

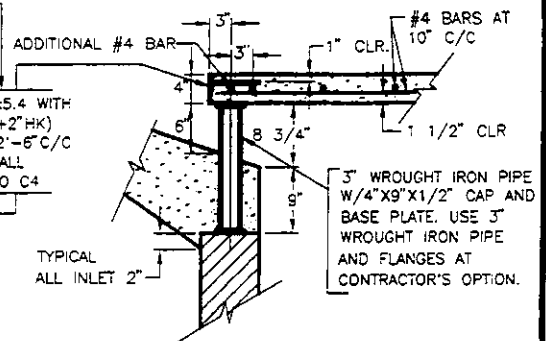
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

DRIVEWAY ENDWALL
OPEN SECTION ROAD

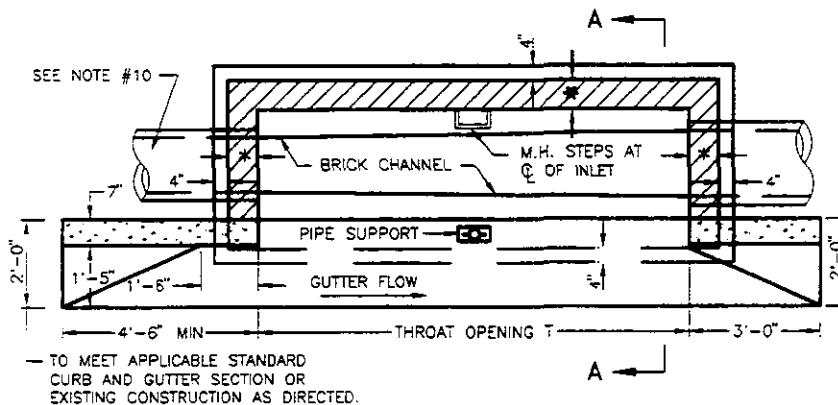
STANDARD NO. MC-500.01



PLAN TOP SLAB



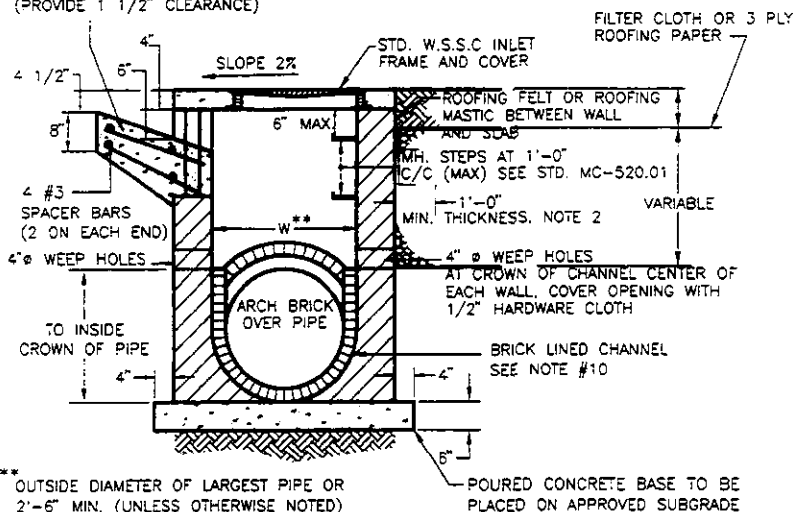
SECTION THROUGH PIPE SUPPORT



PLAN BELOW SLAB

* SEE NOTE # 5.

#3 TOP AND BOTTOM AT 10" C/C THROUGHOUT GUTTER SECTION (PROVIDE 1 1/2" CLEARANCE)



SECTION A-A

GENERAL NOTES

1. USE SOLID MASONRY (BRICK OR CONCRETE BLOCK) OR POURED CONCRETE FOR WALLS.
2. INSTALL FOUNDATION DRAINAGE MATERIAL AROUND STRUCTURE FROM BOTTOM OF WEEP HOLES TO WITHIN 8" OF SURFACE.
3. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C 270 TYPE M.
4. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION FOR MATERIALS AND METHODS OF CONSTRUCTION.
5. WALL THICKNESS WILL BE THE FOLLOWING: 8" THICK WALLS FOR THE FIRST 8'-0" OF DEPTH, 12" THICK WALLS BETWEEN 8'-0" AND 12'-0" OF DEPTH, 16" THICK WALLS FOR DEPTH GREATER THAN 12'-0" DEPTH TO BE MEASURED FROM TOP OF CURB TO CROWN OF OUTGOING PIPE.
6. $f_c = 3500$ PSI AT 28 DAYS.
7. ALL REINFORCING STEEL TO BE ASTM A615, GR 60.
8. FOR PIPES 30" AND LARGER, PROVIDE STEPS IN CHANNELS OR STRUCTURES. SEE STANDARD MC-520.02
9. ON TERMINAL INLETS, THE INLET BOTTOM SHALL BE SLOPED TO OUTLET PIPE WITH SEWER BRICK OR CONCRETE, 9" MIN. FALL.
10. FOR ACTUAL PIPE LOCATIONS, REFER TO STORM DRAIN PLANS AND CONSTRUCT BRICK CHANNEL TO PIPE CONFIGURATIONS BRICK CHANNEL SHALL BE SEWER BRICK ON EDGE AND BUILT TO THE CROWN OF THE PIPE.

DESIGNATION	T THROAT OPENING	NUMBER OF PIPE SUPPORTS
A-5	5'-0"	0
A-10	10'-0"	1
A-15	15'-0"	2
A-20	20'-0"	3

PIPE SUPPORTS TO BE SPACED AT 5'-0" C/C

APPROVED JAN 5 / 96
DATE

John Mark
DIRECTOR, DEPT. OF TRANS.

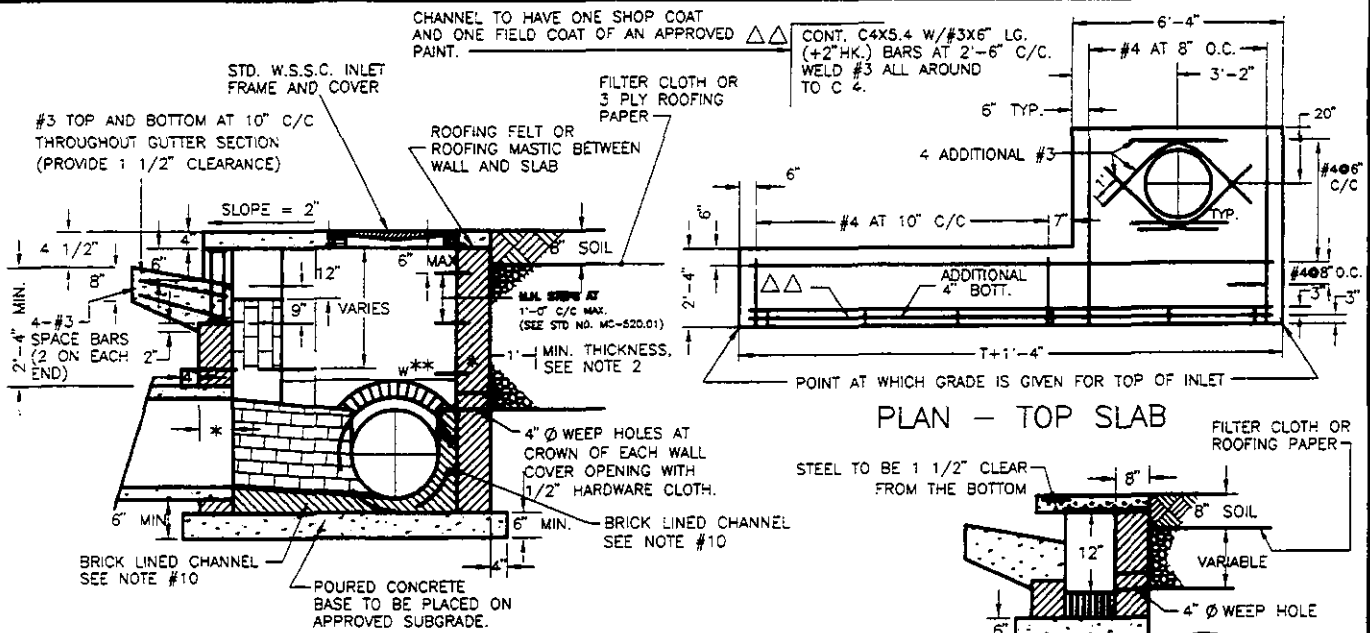
Edouard
CHIEF, DIV. OF ENG. SERVICES

REVISED

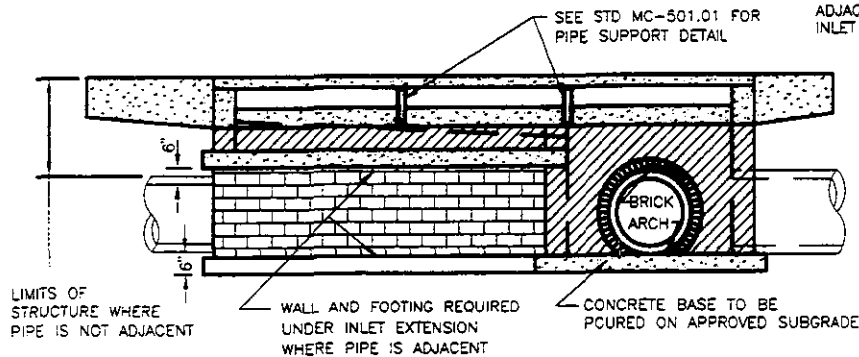
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

"A" INLET

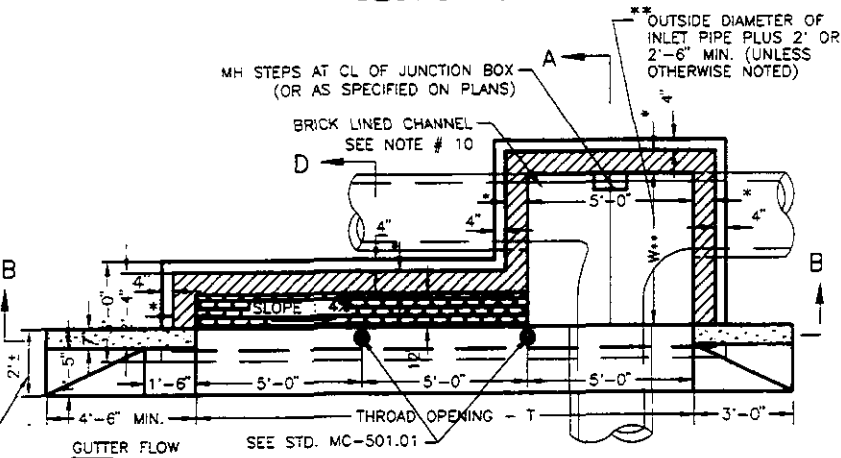
STANDARD NO. MC-501.01



SECTION A-A



SECTION B-B



PLAN - TOP SLAB REMOVED

SECTION D-D

GENERAL NOTES

1. USED SOLID MASONRY (BRICK OR CONCRETE BLOCK) OR POURED CONCRETE FOR WALLS.
2. INSTALL FOUNDATION DRAINAGE MATERIAL AROUND STRUCTURE FROM BOTTOM OF WEEP HOLES TO WITHIN 8" OF SURFACE.
3. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C270 TYPE M.
4. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION FOR MATERIALS AND METHODS OF CONSTRUCTION.
5. WALL THICKNESS WILL BE THE FOLLOWING: 8" THICK WALLS FOR THE FIRST 8'-0" OF DEPTH, 12" THICK WALL BETWEEN 8'-0" AND 12'-0" OF DEPTH, 16" THICK WALLS FOR DEPTH GREATER THAN 12'-0" DEPTH TO BE MEASURED FROM TOP OF CURB TO CROWN OF OUTGOING PIPE.
6. $f'_c = 3500$ PSI AT 28 DAYS.
7. ALL REINFORCING STEEL TO BE ASTM A615, GR.60.
8. FOR PIPES 30" AND LARGER, PROVIDE STEPS IN CHANNELS OF STRUCTURE. SEE STANDARD MC-520.02
9. ON TERMINAL INLETS, THE INLET BOTTOM SHALL BE SLOPED TO OUTLET PIPE WITH 9" MIN. FALL, SEWER BRICK OR CONCRETE.
10. FOR ACTUAL PIPE LOCATIONS, REFER TO STORM DRAIN PLANS AND CONSTRUCT BRICK CHANNEL TO PIPE CONFIGURATIONS. BRICK CHANNEL SHALL BE SEWER BRICK ON EDGE AND BUILT TO THE CROWN OF THE PIPES.

DESIGNATION	T THROAT OPENING	NUMBER OF PIPE SUPPORTS
B-10	10'-0"	3
B-15	15'-0"	3
B-20	20'-0"	3

PIPE SUPPORTS TO BE SPACED AT 5'-0" C/C

APPROVED JAN 5/95
DATE

Yule M. ...
DIRECTOR, DEPT. OF TRANS.

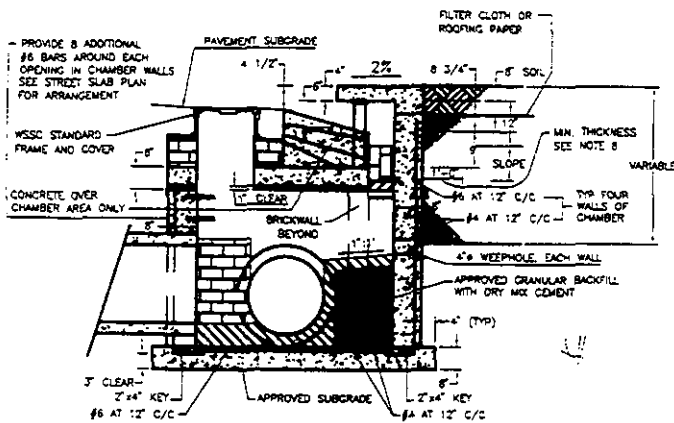
Edgar ...
CHIEF, DIV. OF ENG. SERVICES

REVISED

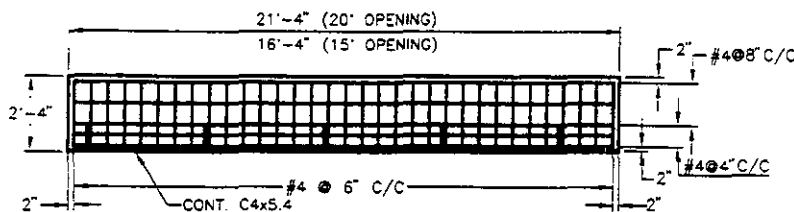
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

" B " INLET

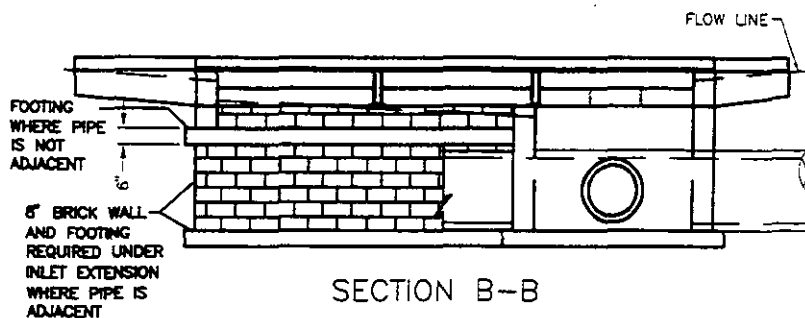
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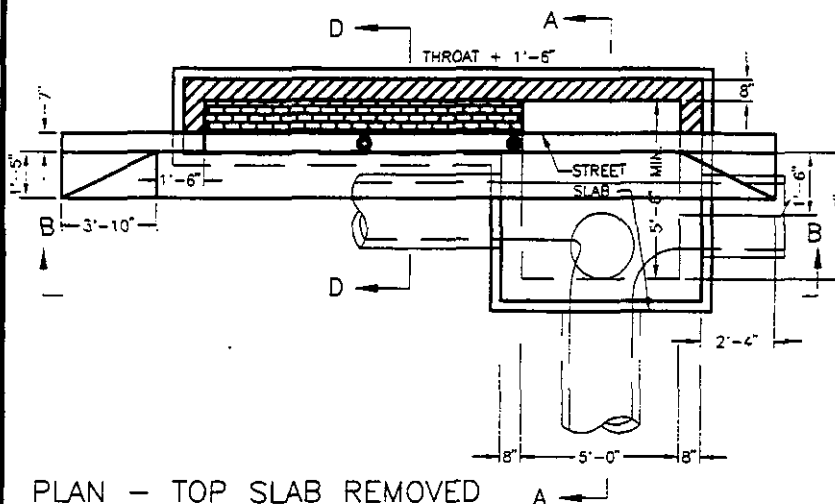
SECTION A-A



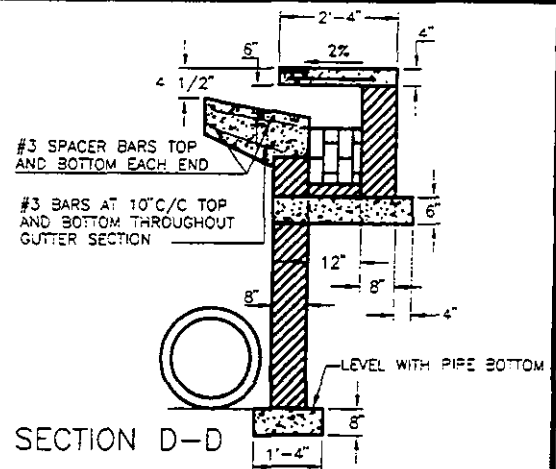
TOP SLAB



SECTION B-B

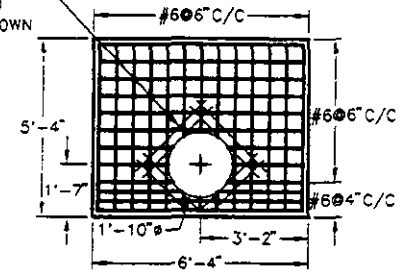


PLAN - TOP SLAB REMOVED



SECTION D-D

#4 BARS TOP AND BOTTOM AROUND OPENING AS SHOWN



STREET SLAB

GENERAL NOTES

1. **LOADING** AASHTO HS 20-44
2. **MOTAR** SHALL CONFORM TO ASTM SPECIFICATION C 270 TYPE M.
3. **REINFORCING STEEL** REINFORCING STEEL FOR CONCRETE SHALL CONFORM TO AASHTO DESIGNATION: M31 (ASTM A615) GRADE 60. ALL SPLICES SHALL BE LAPPED A MINIMUM OF 24 BAR DIAMETERS UNLESS OTHERWISE NOTED. MINIMUM COVER FOR REINFORCING BARS SHALL BE 2" UNLESS OTHERWISE NOTED.
4. FOR PIPES LARGER THAN 30" PROVIDE STEPS IN CHANNEL OF STRUCTURE.
5. FOR TYPE "A" INLET USE SECTION A-A WITH A THROAT OPENING OF 5'-0". LONGER OPENINGS REQUIRE SPECIAL DESIGN.
6. FOR TREATMENT OF THE CHANNEL, STEPS AND OTHER ASSOCIATED DETAILS, REFER TO THE STANDARD STORM DRAINAGE DETAILS OF THE W.S.S.C. OR MONTGOMERY COUNTY.
7. **CONTRACTOR'S OPTION** SPECIAL INLET WALL, MAY BE CONSTRUCTED OF BRICK SUBJECT TO THE FOLLOWING:
 - A. 8" THICK WALLS FOR THE FIRST 5'-0" OF DEPTH.
 - B. 12" THICK WALLS BETWEEN 5'-0" AND 8'-0" OF DEPTH.
 - C. 16" THICK WALLS FOR DEPTHS GREATER THAN 8'-0"
 - D. DEPTH WILL BE MEASURED FROM TOP OF CURB TO INVERT OF OUTGOING PIPE.
8. INSTALL FOUNDATION DRAINAGE MATERIAL AROUND STRUCTURE FROM BOTTOM OF WEEP HOLES TO WITHIN 8' OF SURFACE.

DESIGNATION	T THROAT OPENING	NUMBER OF PIPE SUPPORTS
B-10	10'-0"	1
B-15	15'-0"	2
B-20	20'-0"	3

APPROVED JAN 5/95
DATE

[Signature]
DIRECTOR, DEPT. OF TRANS.

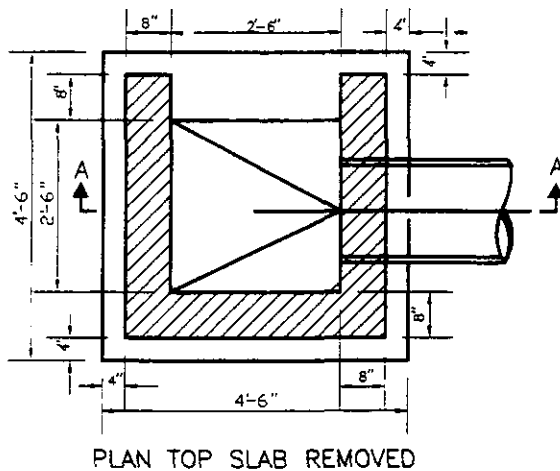
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CHIEF, DIV. OF ENG. SERVICES

REVISED

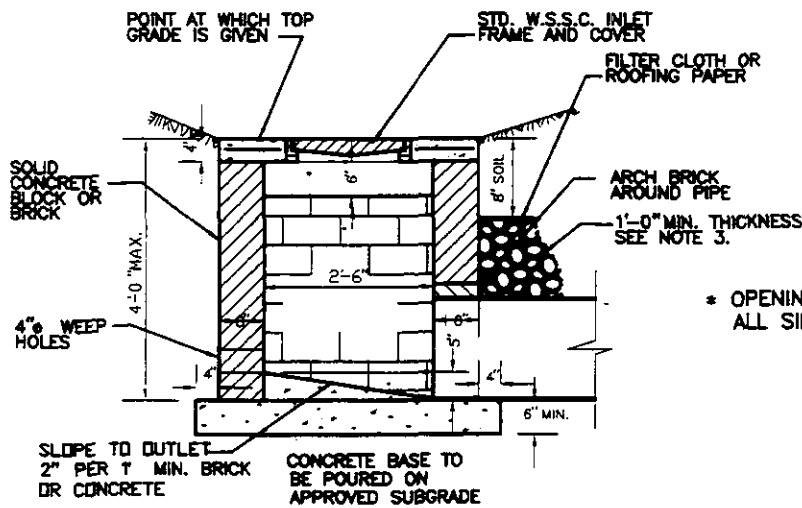
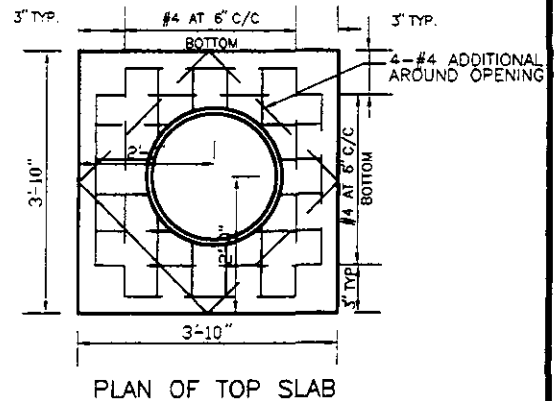
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

REVERSE "B" INLET

STANDARD NO. MC-502.02



NOTE:
BOTTOM STEEL TO BE 1 1/2"
CLR. OF BOTTOM OF SLAB.



* OPENINGS MAY BE PLACED IN ANY OR
ALL SIDES AS SPECIFIED

GENERAL NOTES

1. THIS STANDARD TO BE USED AS TERMINAL INLET ONLY.
2. USE SOLID MASONRY (BRICK OR CONCRETE BLOCK) OR POURED CONCRETE FOR WALLS.
3. INSTALL FOUNDATION DRAINAGE MATERIAL AROUND STRUCTURE FROM BOTTOM OF WEEP HOLES TO WITHIN 8" OF SURFACE. MIN. 1' FROM WALL.
4. WEEP HOLES TO BE PLACED IN WALL OPPOSITE OUTLET PIPE 5" ABOVE PIPE INVERT. COVER OPENING WITH 1/2" HARDWARE CLOTH.
5. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C 270 TYPE M.
6. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION FOR MATERIALS AND METHODS OF CONSTRUCTION.
7. f'c= 3,500 PSI AT 28 DAYS.

APPROVED JAN 5/96
DATE

[Signature]
DIRECTOR, DEPT. OF TRANS.

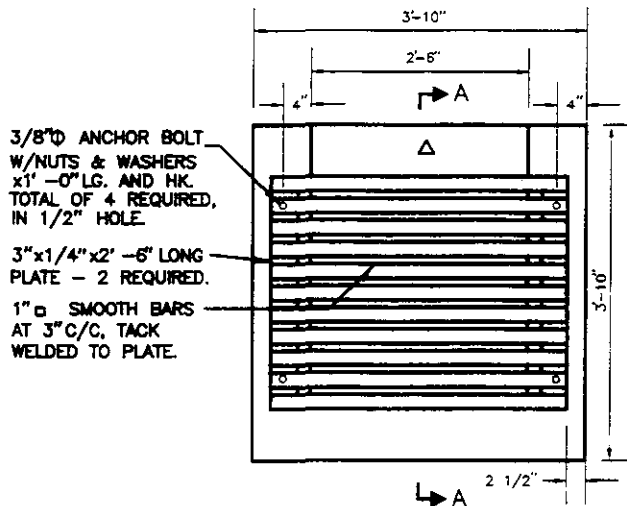
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CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

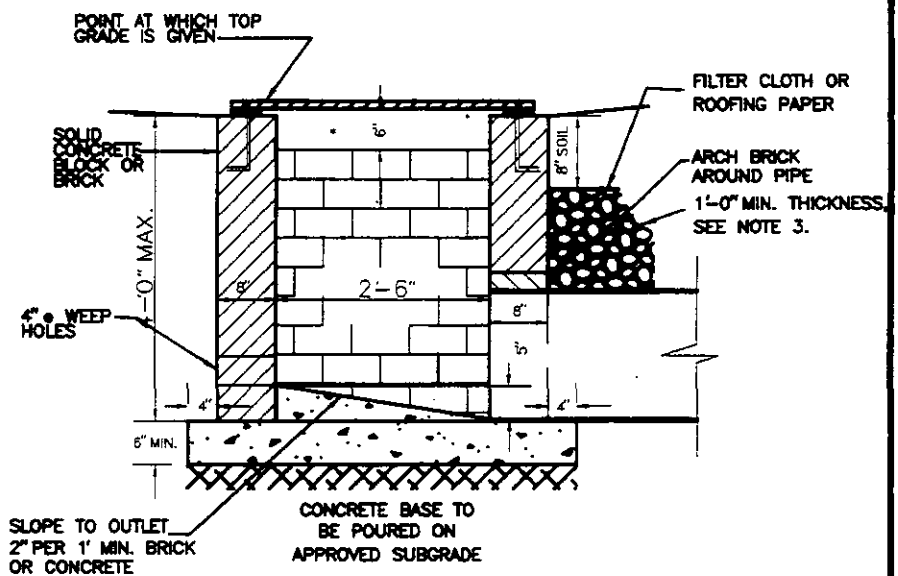
"D" INLET

STANDARD NO. MC-503.01



△ PROVIDE OPENING IN
UPSTREAM SIDE ONLY,
EXCEPT WHEN LOCATED
IN SUMP.

"PLAN"




SECTION "A-A"

GENERAL NOTES

1. E INLET TO BE USED AS TERMINAL INLETS ONLY.
2. USE SOLID MASONRY (BRICK OR CONCRETE BLOCK) OR POURED CONCRETE FOR WALLS.
3. INSTALL FOUNDATION DRAINAGE MATERIAL AROUND STRUCTURE FROM BOTTOM OF WEEP HOLES TO WITHIN 8' OF SURFACE. MIN 1' FROM WALL.
4. WEEP HOLES TO BE PLACED IN WALL OPPOSITE OUTLET PIPE 5" ABOVE PIPE INVERT. COVER OPENING WITH 1/2" HARDWARE CLOTH.
5. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C 270 TYPE M.
6. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION FOR MATERIALS AND METHODS OF CONSTRUCTION.
7. $f'_c=3,500$ PSI AT 28 DAYS.

APPROVED JAN 5/95
DATE


DIRECTOR, DEPT. OF TRANS.

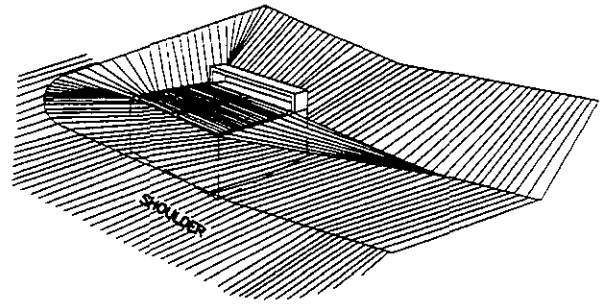
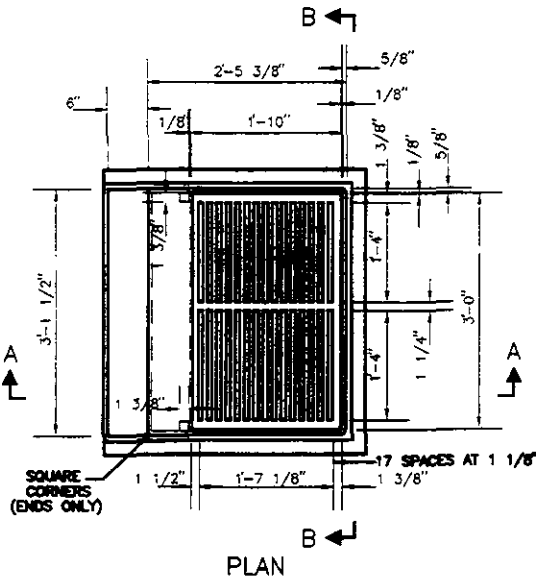
Edgelyonzek
CHIEF, DIV. OF ENG. SERVICES

REVISÉD

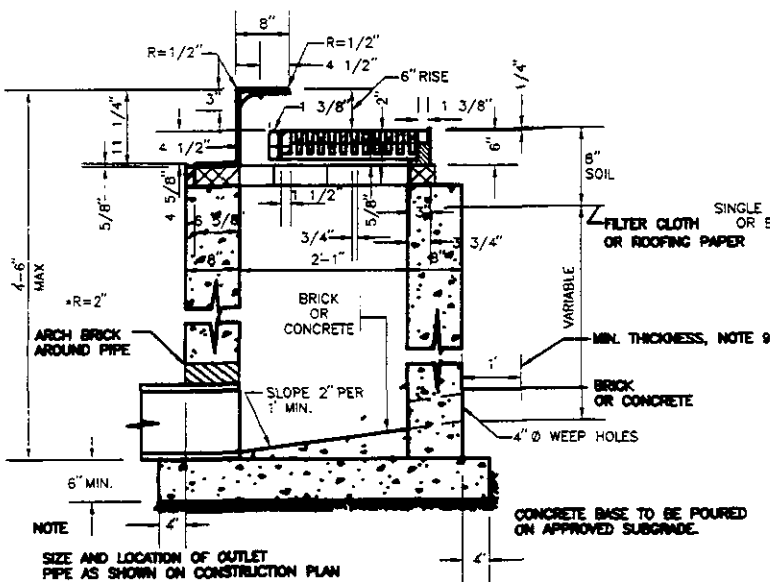
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

"E" INLET

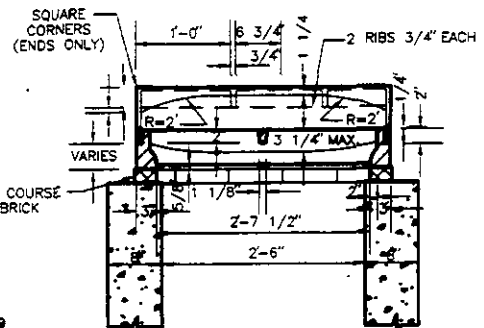
STANDARD NO. MC-504.01



ISOMETRIC VIEW



SECTION A-A



SECTION B-B

GENERAL NOTES

1. USE SOLID MASONRY (BRICK OR CONCRETE BLOCK) OR POURED CONCRETE FOR WALLS.
2. THROAT OPENING MAY BE PARALLEL OR PERPENDICULAR TO DITCH.
3. USE AS TERMINAL INLET ONLY.
4. WEEP HOLES TO BE PLACED IN WALL OPPOSITE OUTLET PIPE 5\"/>

APPROVED JAN 5/96
DATE

Lesley Mooten
DIRECTOR, DEPT. OF TRANS.

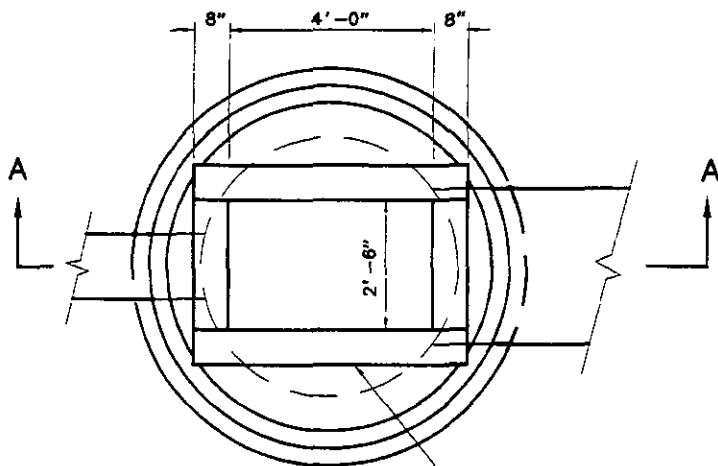
Edouard
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

"E-4" INLET

STANDARD NO. MC-505.01

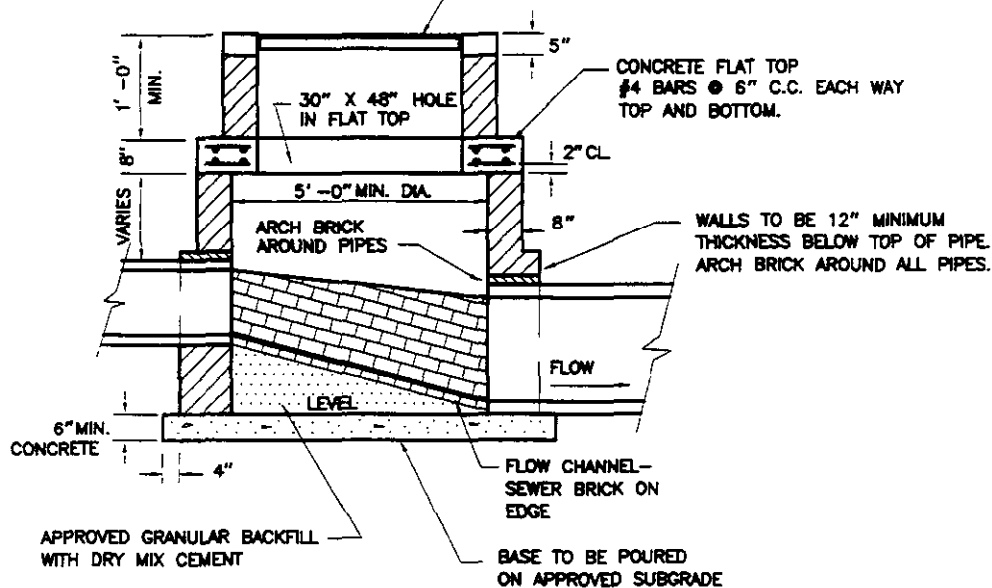


SEE MC-506.02
FOR INLET DETAILS
NOT SHOWN

DEPTH OF STR.	WALL THICKNESS	BASE THICKNESS
1' TO 5'	8"	6"
5' TO 8'	12"	6"
8' TO 12'	16"	8"

NOTE: DEPTH OF STRUCTURE TO BE MEASURED
FROM BOTTOM OF FLAT TOP TO INVERT OF
OUTGOING PIPE.

OUTGOING PIPE SIZE	STRUCTURE DIAMETER
15" - 36"	60"
42" - 48"	72"
54" - 60"	84"
72"	96"



SECTION A-A

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. USE SOLID MASONRY (BRICK OR CONCRETE BLOCK) OR POURED CONCRETE FOR WALLS. USE OF M.C.D.O.T. APPROVED PRECAST CONCRETE STRUCTURES MAY BE USED IN PLACE OF BRICK MASONRY.
3. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C270 TYPE M.
4. PROVIDE STEPS IN CHANNELS OF STRUCTURES. REFER TO MC-520.01 FOR DETAILS.
5. $f'c = 3,500$ P.S.I. AT 28 DAYS.
6. TWO 4" ϕ WEEP HOLES TO BE PLACED OPPOSITE EACH OTHER AT CROWN OF CHANNEL COVER OPENING WITH 1/2" HARDWARE CLOTH.
7. INSTALL FOUNDATION DRAINAGE MATERIAL 1' MINIMUM THICKNESS AROUND STRUCTURE FROM BOTTOM OF WEEP HOLES TO WITHIN 8" OF FINISHED GRADE.
8. PARGE OUTSIDE WALLS.

APPROVED JAN 5/95
DATE

Tracy M. ...
DIRECTOR, DEPT. OF TRANS.

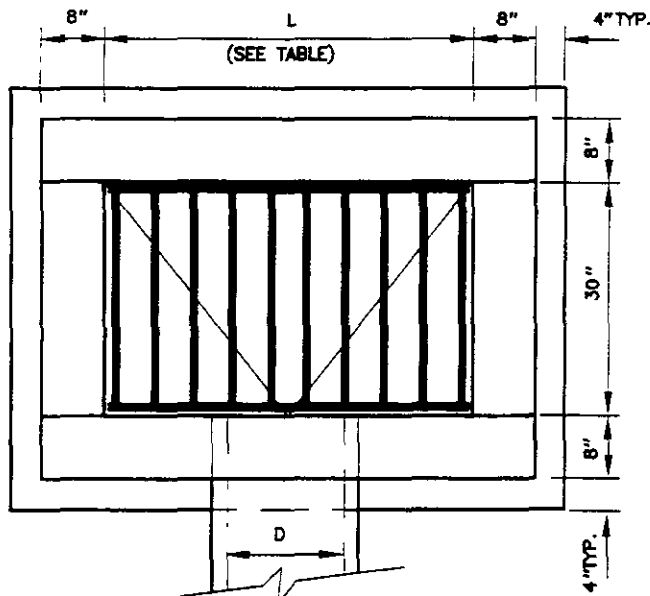
Edgar ...
CHIEF, DIV. OF ENG. SERVICES

REVISED

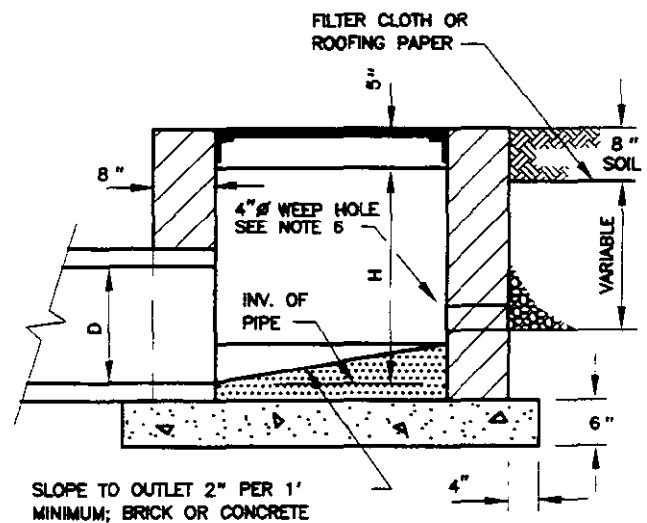
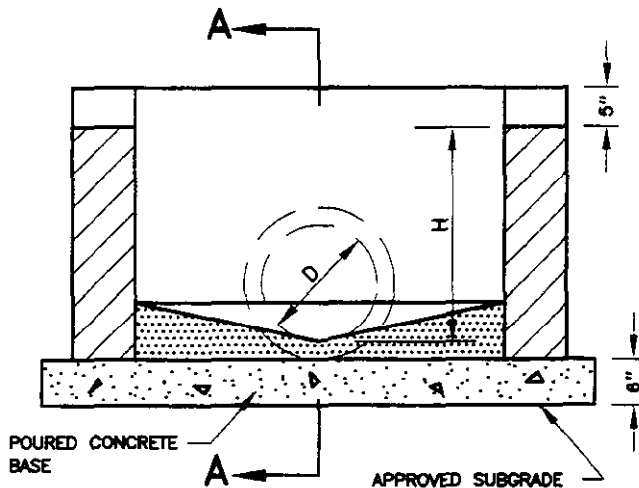
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

"J" INLET

STANDARD NO. MC-506.01



D	L	H
15"	4' - 0"	2' - 6"
18"	4' - 0"	2' - 9"
21"	4' - 6"	3' - 0"
24"	5' - 0"	3' - 3"
27"	5' - 6"	3' - 7"
30"	6' - 0"	3' - 10"
33"	6' - 0"	4' - 1"
36"	6' - 0"	4' - 4"



SECTION A-A

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. PROVIDE GRATE PER M.S.H.A. STD. NO. MD-377.02 MODIFIED WITH BARS 3" O.C.; TACK WELD IN PLACE.
3. CONSTRUCTION TO BE OF CONCRETE OR BRICK MASONRY.
4. STEEL VERTICAL 1/2" ϕ BARS, 6" C.C., HORIZONTAL 1/2" ϕ BARS, 6" C.C.; BOTTOM 1/2" ϕ BARS 6" C.C. EACH WALL, 2" MIN. COVER. (WITH CONCRETE CONSTRUCTION)
5. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C270 TYPE M.
6. WEEP HOLES TO BE PLACED IN WALL OPPOSITE OUTLET PIPE 5" ABOVE PIPE INVERT. COVER OPENING WITH 1/2" HARDWARE CLOTH. INSTALL FOUNDATION DRAINAGE MATERIAL AROUND STRUCTURE FROM BOTTOM OF WEEP HOLES TO WITHIN 8" OF SURFACE FOR A THICKNESS OF 12" MINIMUM.
7. BRICK SHALL CONFORM TO AASHTO DESIGNATION M-114 GRADE SW.
8. $f'_c = 3500$ PSI AT 28 DAYS.
9. PARGE OUTSIDE WALLS.

APPROVED JAN 5/95
DATE

James H. White
DIRECTOR, DEPT. OF TRANS.

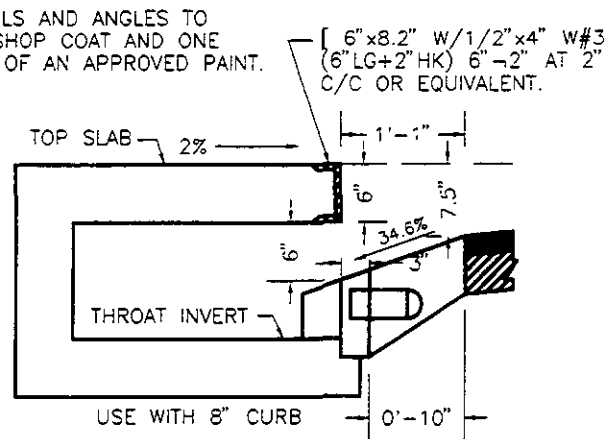
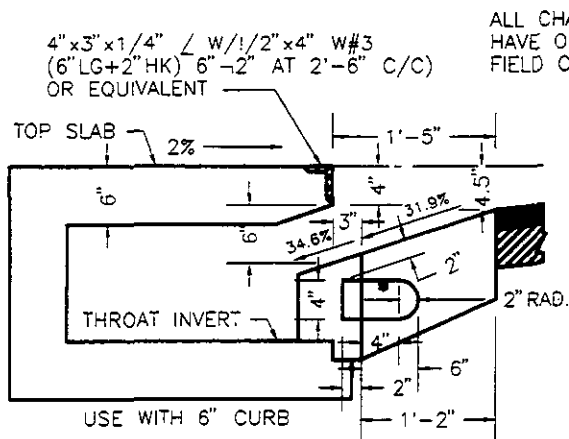
Edgelynnale
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

"J" INLET
AS A TERMINUS

STANDARD NO. MC-506.02



THROAT SECTION DETAIL

* 5/8" DIAMETER DEFORMED STEEL
BARS 8" LONG WITH 2" RADIUS AT
30" CENTERS.

GENERAL NOTES

THROAT SECTION NOTES:

1. THE THROAT INVERT SHALL SLOPE A MINIMUM OF 1.5% TO THE PIPE CHAMBER WITH A 2" MINIMUM DEPTH AT THE CHAMBER OPENING AND A 5" MAXIMUM DEPTH AT THE FAR END, USING MSHA MIX NO. 2 CONCRETE.
2. A 4" GUTTER PAN DEPRESSION SHALL BE REQUIRED FOR THE FULL LENGTH OF THE THROAT SECTION.
3. THE GUTTER PAN MAY BE PRECAST OR CAST IN PLACE.
4. THE TOP SLAB SHALL BE 4" MINIMUM THICK WITH A 6" HIGH CURB; AND 6" MINIMUM THICK WITH AN 8" HIGH CURB. SUPPORT POSTS AT 5' O.C. ARE REQUIRED WITH 4" THICK TOP SLAB.

PIPE CHAMBER NOTES:

5. MAINTAIN A MINIMUM 12" CLEARANCE BETWEEN TOP OF BENCH AND BOTTOM OF FLATTOP OR EXTEND BENCH TO BOTTOM OF FLATTOP.
6. STRUCTURE OPENINGS SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 2" MINIMUM-5" MAXIMUM FOR PIPES UP THROUGH 36", AND 3" MINIMUM-6" MAXIMUM FOR PIPES 42" AND GREATER.
7. THE INVERT ON TERMINAL STRUCTURES SHALL SLOPE TO THE OUTLET A MINIMUM OF 2" PER 12". ON THROUGH STRUCTURES, A FORMED CHANNEL SHALL BE REQUIRED.
8. 6" DIAMETER KNOCKOUTS SHALL BE CAST INTO EACH END OF THE STRUCTURE FOR POSSIBLE UNDERDRAIN CONNECTIONS. 4" DIAMETER WEEPHOLE KNOCKOUTS SHALL BE CAST INTO THE FRONT AND BACK OF THE STRUCTURE, ONE PER FACE. LOCATE INVERT OF KNOCKOUT AT CROWN OF HIGHEST CHANNEL.
9. A MINIMUM OF 3.5' IS REQUIRED BETWEEN THE OUTLET PIPE INVERT AND THE FLATTOP.

NOTES FOR BOTH:

10. INVERTS SHALL BE PAVED WITH SEWER BRICK OR CONCRETE.
11. THE MANUFACTURER'S NAME AND DATE OF MANUFACTURE SHALL BE LOCATED ON THE INSIDE OF ALL STRUCTURE COMPONENTS.
12. THE MCDOT MATERIALS LAB SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF FABRICATION.
13. THREE (3) NOTARIZED CERTIFICATIONS OF SPECIFICATIONS WILL BE REQUIRED FOR ALL SHIPMENTS.
14. CONCRETE TO BE $f'c=3500$ PSI AT 28 DAYS.
15. STEPS WILL NOT BE PERMITTED IN THE FLATTOP.
16. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C270 TYPE M AND WILL BE USED TO SEAL LIFT HOLES, THROAT SECTION TO PIPE CHAMBER, AND SEAL AROUND ALL PIPE CONNECTIONS.
17. OTHER SPECIFIED COMBINATIONS OF CONCRETE AND STEEL PROVIDING THE SAME OVERALL STRUCTURAL STRENGTH AS MCDOT STD.MC-501.01 AND MC-502.01 WILL BE CONSIDERED FOR APPROVAL ON A CASE BY CASE BASIS.
18. ADJUSTMENT OF THE THROAT SECTION TO THE PIPE CHAMBER SHALL BE LIMITED TO THREE (3) COURSES OF BRICK TOTALING 8 INCHES IN THICKNESS INCLUDING PORTLAND CEMENT JOINTS. PRECAST ADJUSTMENT RINGS WILL BE REQUIRED IN COMBINATION WITH BRICK TO MEET THE MAXIMUM OF THREE COURSES.

APPROVED JAN 5 / 96
DATE

Indy M. Miller
DIRECTOR, DEPT. OF TRANS.

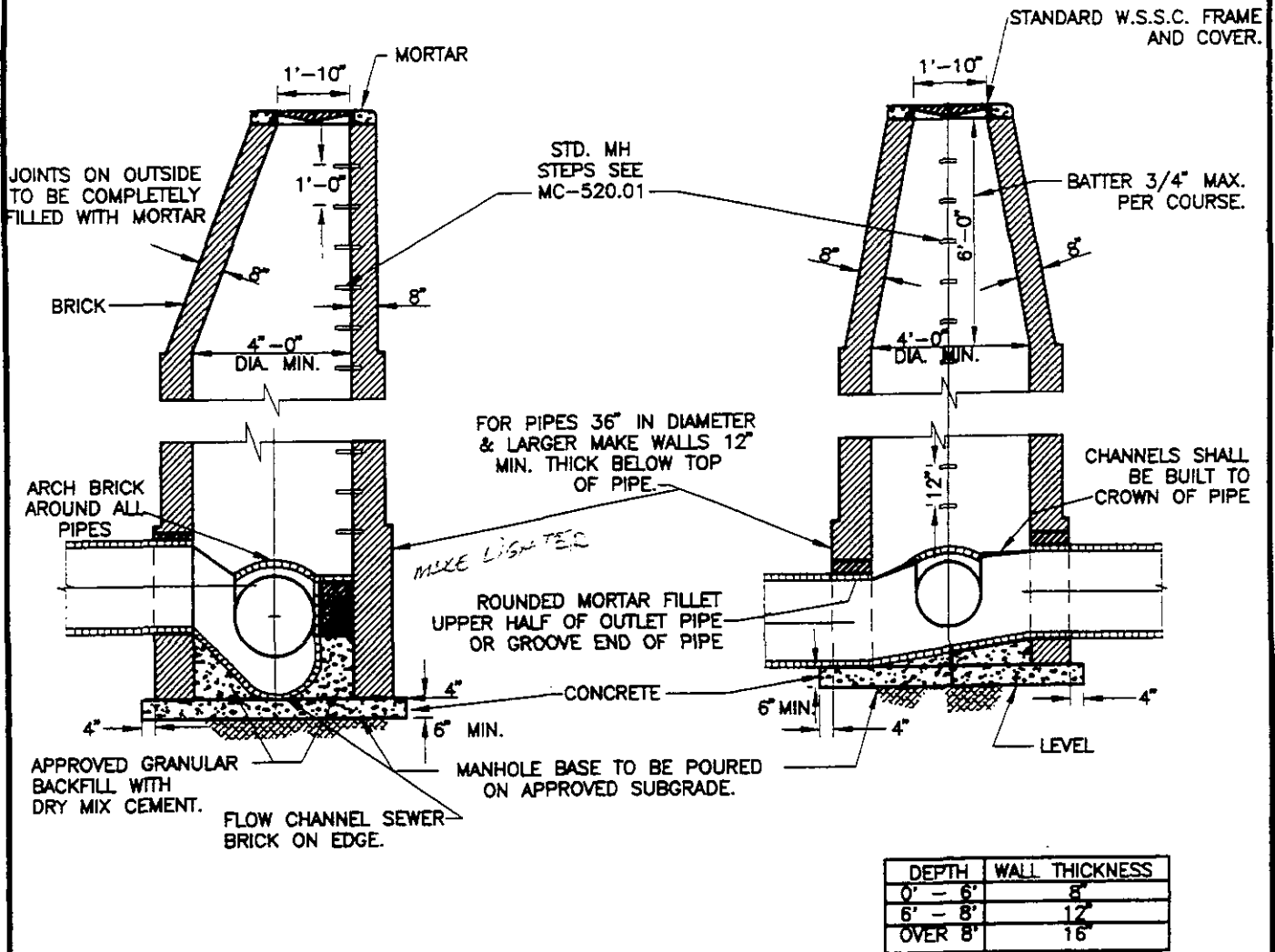
Edgelynn
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

PRECAST CURB INLET
GUIDELINES

STANDARD NO. MC-507.01



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. USE SOLID MASONRY (BRICK OR CONCRETE BLOCK) OR POURED CONCRETE FOR WALLS.
3. PARGE OUTSIDE WALLS.
4. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C270 TYPE M.
5. $f'_c = 3,500$ P.S.I. at 28 DAYS.
6. FOR PIPES LARGER THAN 30" PROVIDE STEPS IN CHANNELS OF STRUCTURES. SEE STANDARD DETAIL STANDARD MC-520.02.

APPROVED JAN 5/96
DATE

DIRECTOR, DEPT. OF TRANS.

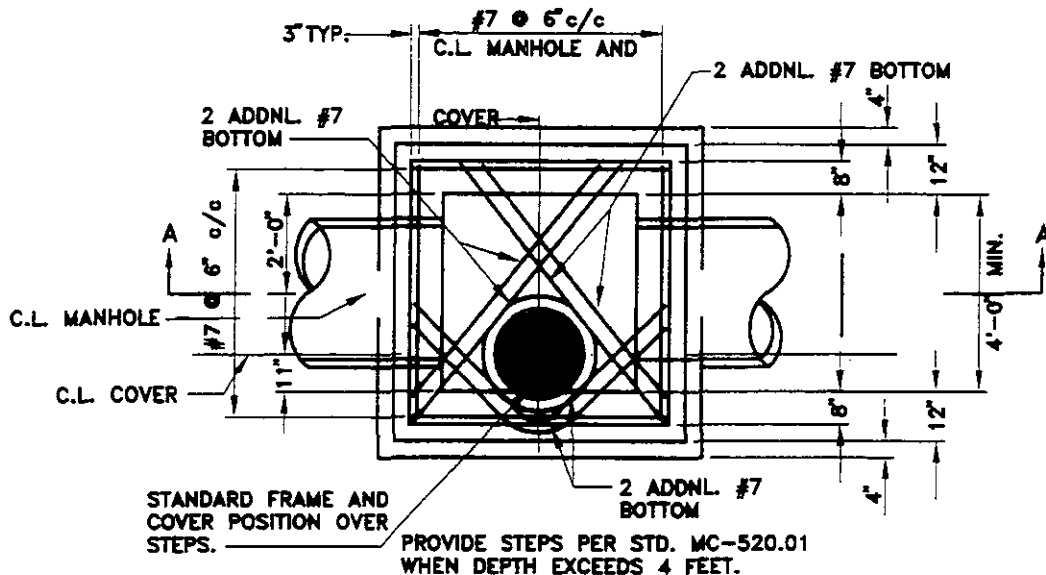
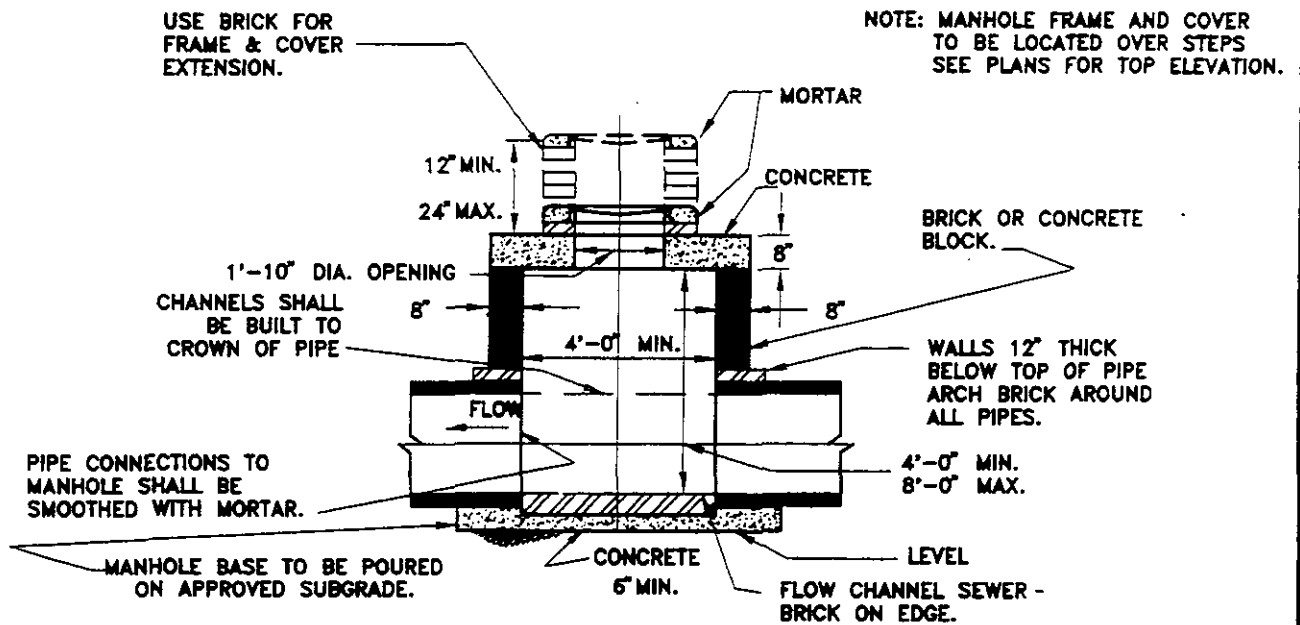
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

"A" MANHOLE

STANDARD NO. MC-510.01



DEPTH	WALL THICKNESS
0' - 6'	8"
6' - 8'	12"

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. USE SOLID MASONRY (BRICK OR CONCRETE BLOCK) OR POURED CONCRETE FOR WALLS.
3. PARGE OUTSIDE WALLS.
4. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C270 TYPE M.
5. $f'c = 3,500$ P.S.I. at 28 DAYS.
6. FOR PIPES LARGER THAN 30" PROVIDE STEPS IN CHANNELS OF STRUCTURES. SEE STANDARD DETAIL . STANDARD MC-520.02

APPROVED JAN 5 / 96
DATE

Robert M. Moore
DIRECTOR, DEPT. OF TRANS.

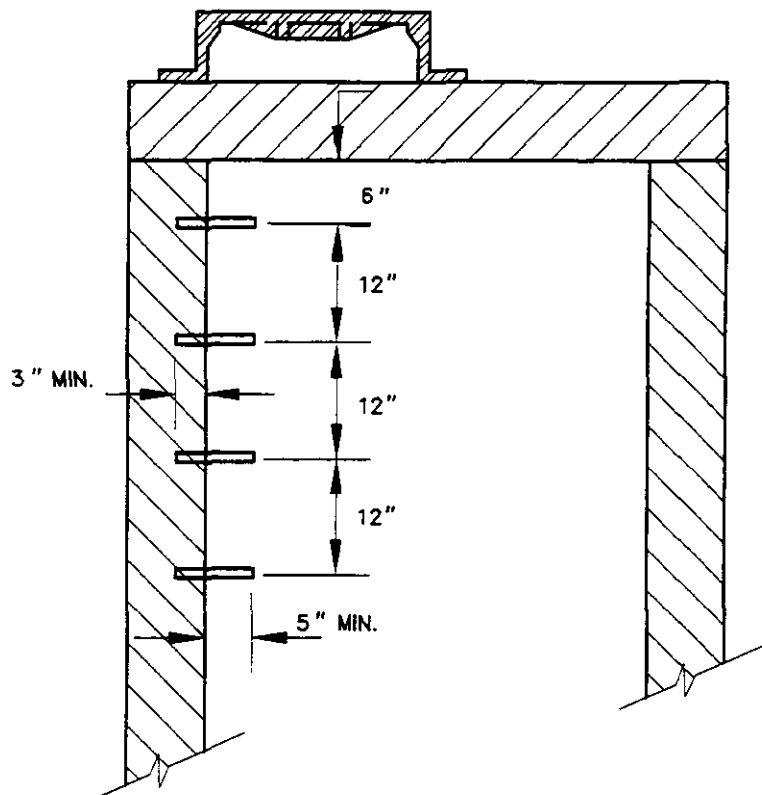
Edgar J. Moore
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

"B" MANHOLE

STANDARD NO. MC-515.01



GENERAL NOTES

1. STEPS ARE TO BE MADE OF: (1) CAST IRON, 1 INCH SQUARE ; (2) 3/8 INCH STEEL ROD EMBEDDED IN POLYPROPYLENE PLASTIC ; OR (3) ALUMINUM ALLOY, 7/8 INCH BY 13/16 INCH WITH A MINIMUM EMBEDMENT OF 3 INCHES, A MINIMUM PROJECTION OF 5 INCHES, AND A MINIMUM WIDTH OF 10 INCHES.
2. STEPS SHALL BE PLACED IN VERTICAL ALIGNMENT, 12 INCHES APART, AND SHALL ALIGN WITH THE COVER OPENING.
3. STEPS ARE NOT REQUIRED IN STRUCTURES LESS THAN 4 FEET IN DEPTH.

APPROVED JAN 5/96
DATE

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DIRECTOR, DEPT. OF TRANS.

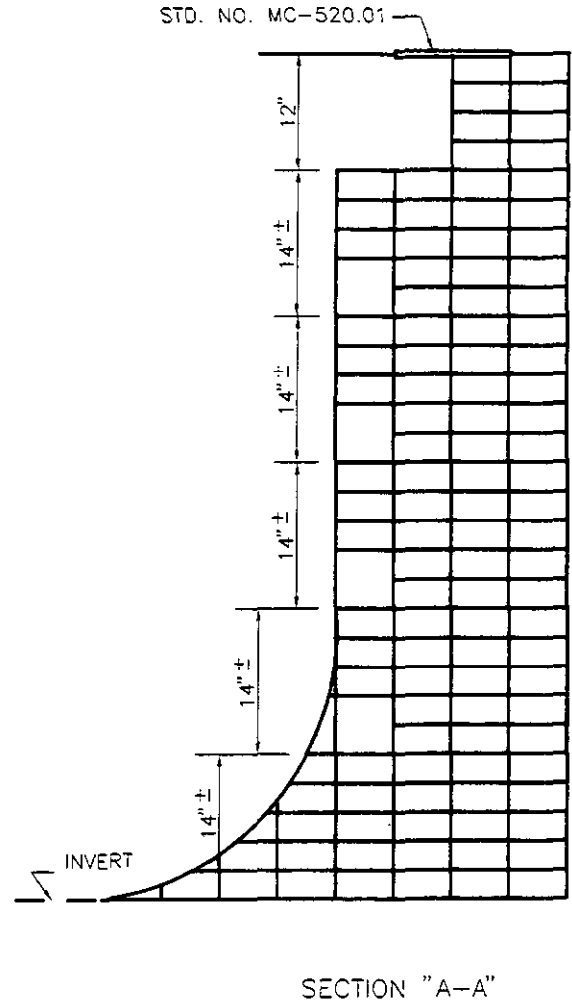
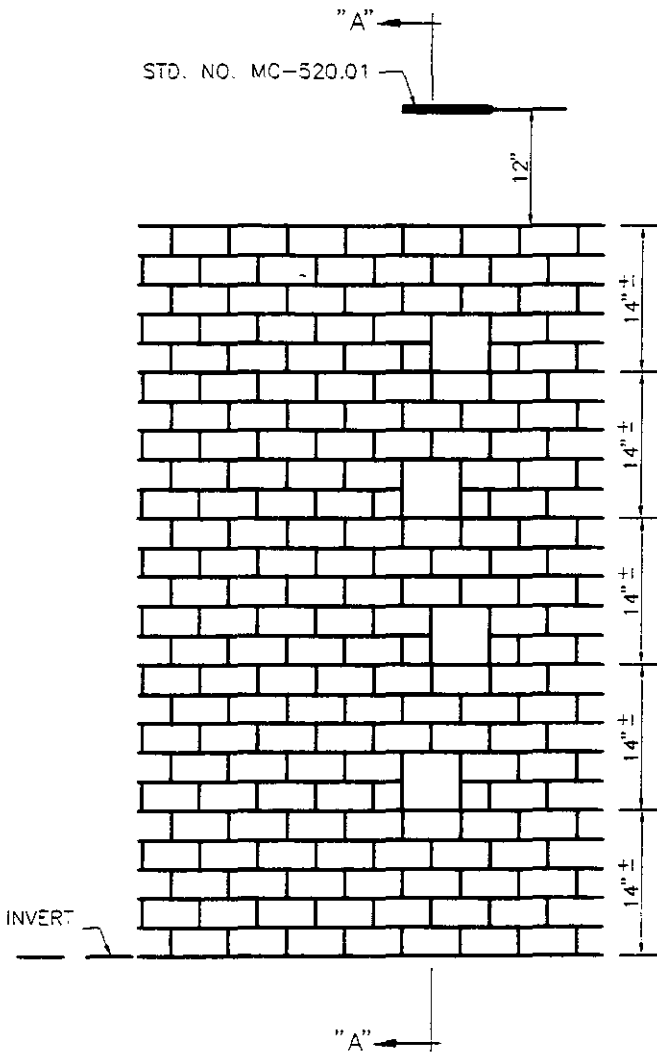
[Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

MANHOLE AND INLET STEPS

STANDARD NO. MC-520.01

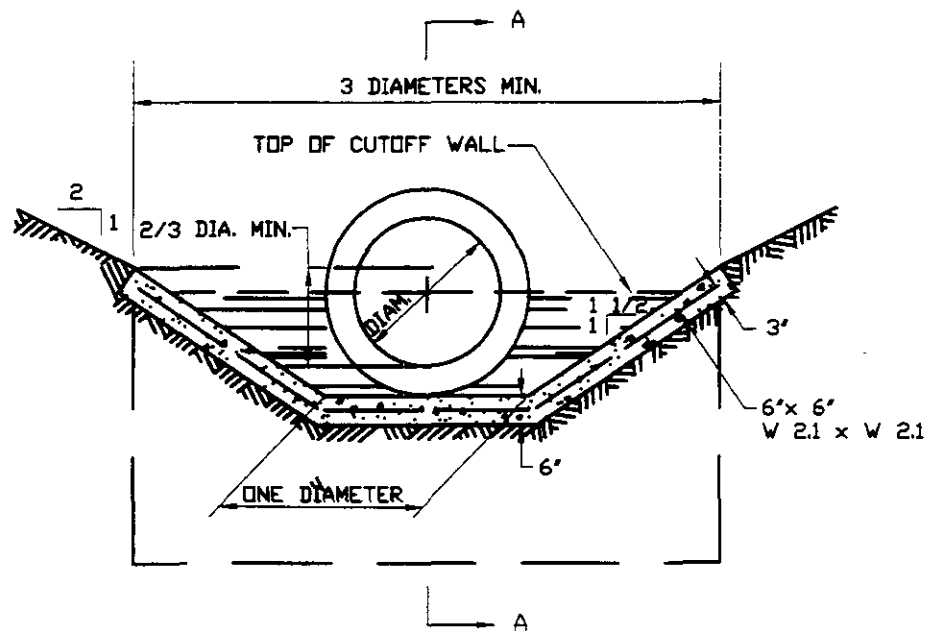
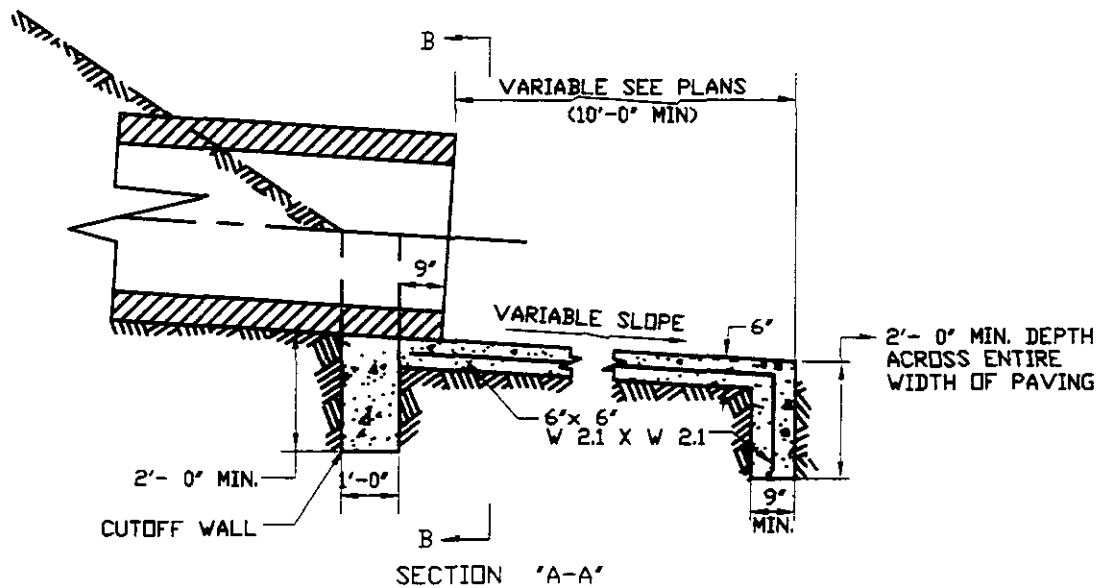


GENERAL NOTES

1. PROVIDE STEP BY LEAVING A 2-BRICK SPACE OUT OF CHANNEL AS SHOWN. STEP TO HAVE A MINIMUM DEPTH OF 4 INCHES.
2. FOR CHANNELS OF PIPES 30 INCHES OR LARGER.

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<p>APPROVED <u>JAN 5 / 95</u> DATE</p> <p><i>[Signature]</i> DIRECTOR, DEPT. OF TRANS.</p> <p><i>[Signature]</i> CHIEF, DIV. OF ENG. SERVICES</p>	<p>REVISED</p> <table border="1"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>									<p>MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION</p> <p>MANHOLE AND INLET STEPS IN CHANNELS</p> <p>STANDARD NO. MC-520.02</p>



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. CHANNEL CROSS SECTION TO TRANSITION TO EXISTING DITCH AT END OF PAVING.
3. THIS STANDARD TO BE USED ONLY ON APPROVAL BY THE DEPARTMENT OF TRANSPORTATION.
4. $f'c = 3500$ p.s.i. at 28 DAYS.
5. WHEN CONCRETE PAVING IS USED, WIRE MESH SHALL BE EXTENDED DOWN INTO CUTOFF WALL AT LOWER END OF PAVING.

APPROVED JAN 5/96
DATE

Edy M. ...
DIRECTOR, DEPT. OF TRANS.

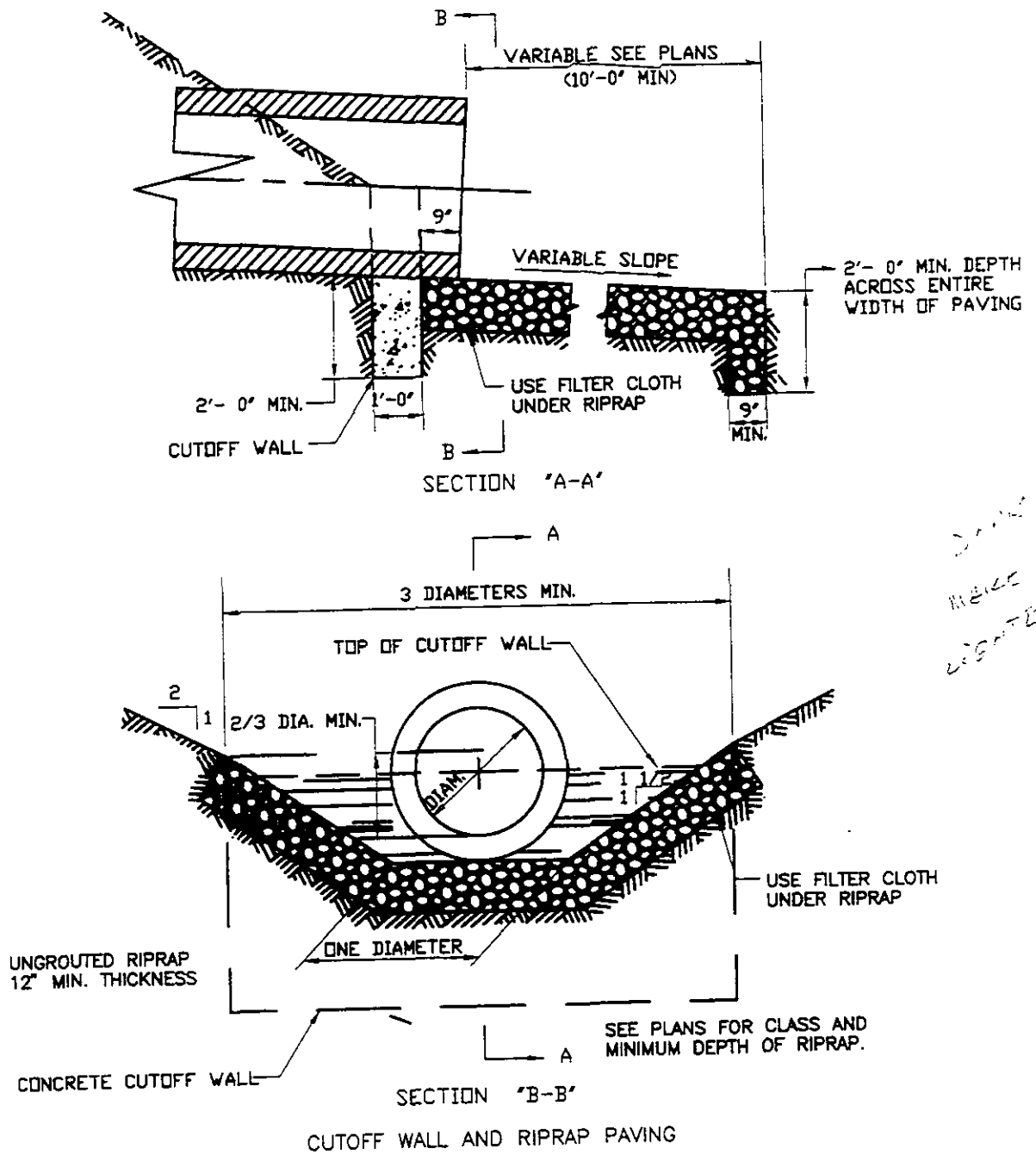
Edy M. ...
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

CUTOFF WALL WITH
CONCRETE OUTFALL

STANDARD NO. MC-521.01



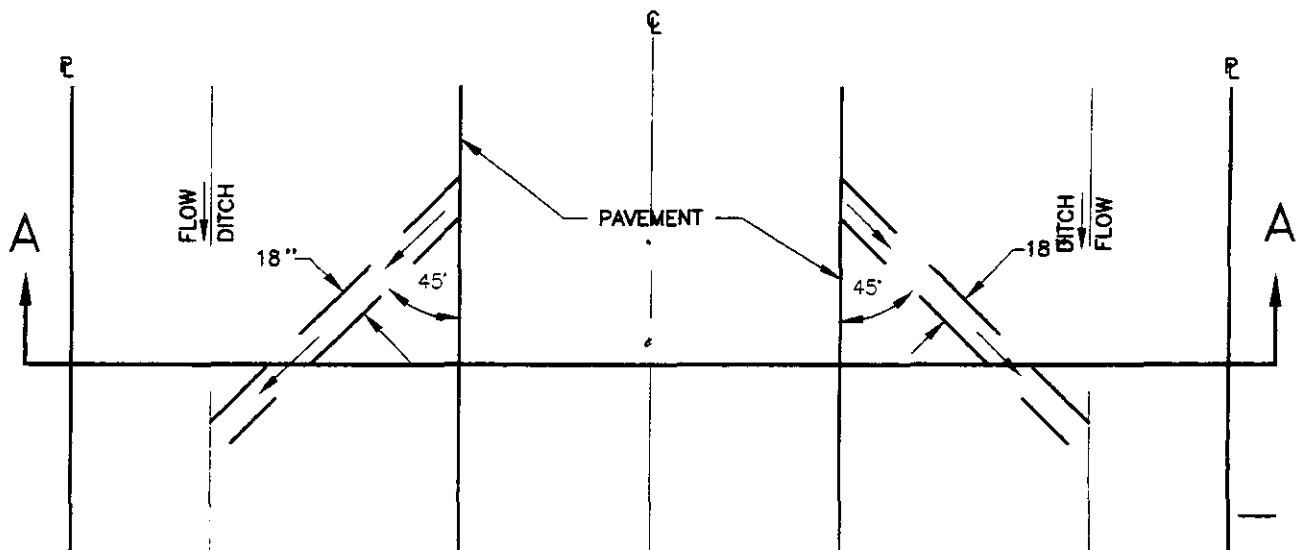
GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. CHANNEL CROSS SECTION TO TRANSITION TO EXISTING DITCH AT END OF PAVING.
3. THIS STANDARD TO BE USED ONLY ON APPROVAL BY THE DEPARTMENT OF TRANSPORTATION.
4. INSTALL FILTER CLOTH UNDER RIPRAP.

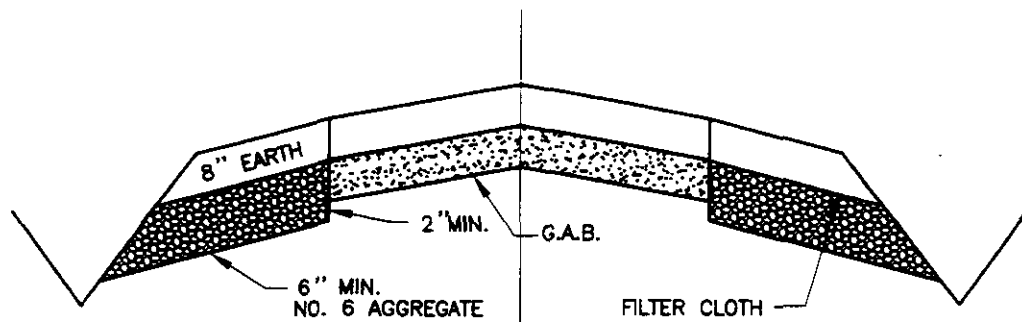
APPROVED <u>JAN 5 / 96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>[Signature]</i> DIRECTOR, DEPT. OF TRANS.		CUTOFF WALL WITH RIPRAP OUTFALL
<i>[Signature]</i> CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-521.02

DIRECTOR, DEPT. OF TRANS.

CHIEF, DIV. OF ENG. SERVICES



PLAN



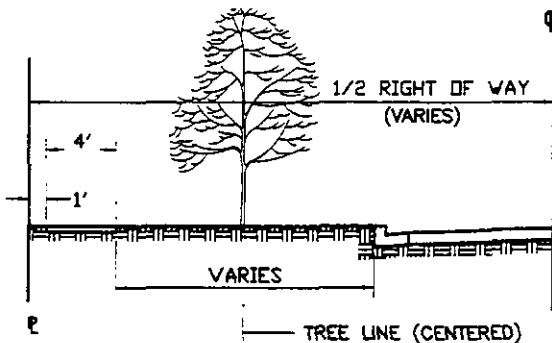
SECTION A - A

GENERAL NOTES

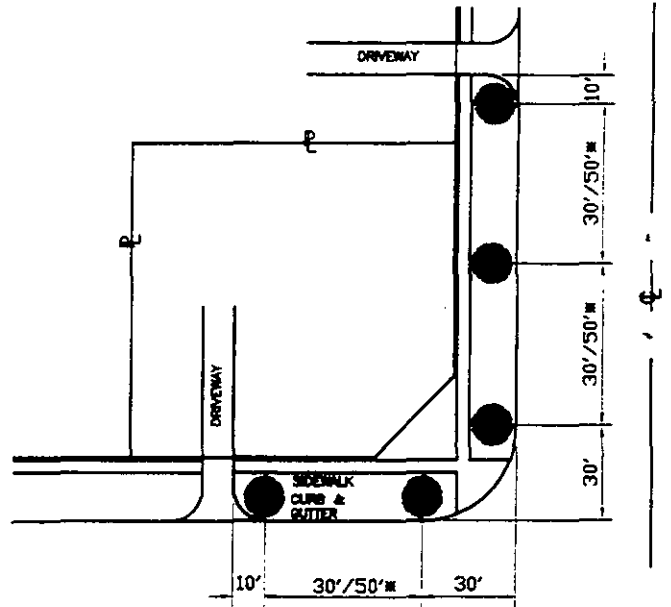
1. MINIMUM SLOPE OF UNDERDRAIN = 1/4 INCH PER FOOT.
2. AGGREGATE IN TRENCH SHALL BE MSHA NO. 6 AGGREGATE, SPECIFICATIONS ARTICLE 20.02.
3. FOR CONSTRUCTION METHODS AND SPACING INTERVALS SEE MCDOT SPECIFICATIONS - 1981 SUBGRADE DRAINS FOR OPEN SECTION ROADWAYS.

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APPROVED <u>JAN 5/95</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>Edgar M. ...</i> DIRECTOR, DEPT. OF TRANS.		SUBGRADE DRAINS
<i>Edgar M. ...</i> CHIEF, DIV. OF ENG. SERVICES		OPEN SECTION ROADWAYS
		STANDARD NO. MC-525.01



PROFILE VIEW
NO SCALE

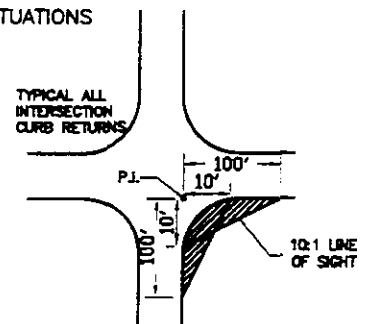


PLAN VIEW
NO SCALE

*DATE
11-26-04
11:26:04 am EST*

NOTES

1. THE DIMENSIONS SHOWN HERE ARE TYPICAL AND MAY BE MODIFIED IN SPECIFIC SITUATIONS BY THE DEPARTMENT OF TRANSPORTATION.
2. TREES ARE TO BE LOCATED WITH THE FOLLOWING MINIMUM CLEARANCES:
 - a. 5' FROM WATER MAIN
 - b. 5' FROM GAS BOX
 - c. 5' FROM INLET OR MH
 - d. 10' FROM FIRE HYDRANT
 - e. 15' FROM STREET LIGHT
- * 3. MINOR TREE SPACING 30' ($\pm 5'$) O.C. MIN.
- * 4. MAJOR TREE SPACING 50' ($\pm 5'$) O.C. MIN.
5. SHADE TREES TO BE 1 1/2" MINIMUM CALIPER 10' MINIMUM HEIGHT.
6. FLOWERING TREES TO BE 3/4" MINIMUM CALIPER 6' MINIMUM HEIGHT.
7. SPECIES TO BE AS APPROVED BY THE MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION.
8. SEE STANDARD NO. MC-702.01 FOR PLANTING DETAILS.
9. NO TREE IS PERMITTED IF GREENSPACE IS LESS THAN 6'.
10. NO TREE IS PERMITTED WITHIN LIMIT OF SIGHT.



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APPROVED JAN 5/96
DATE

Edgar M. ...
DIRECTOR, DEPT. OF TRANS.

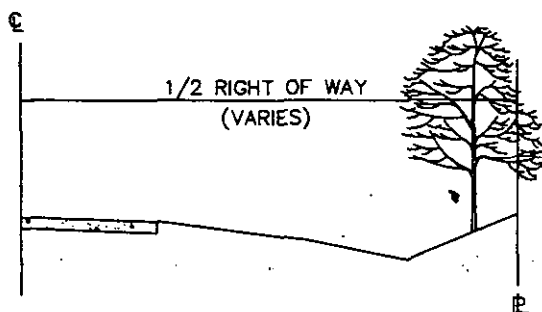
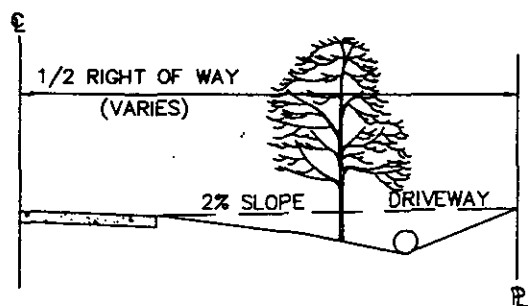
Edgar M. ...
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

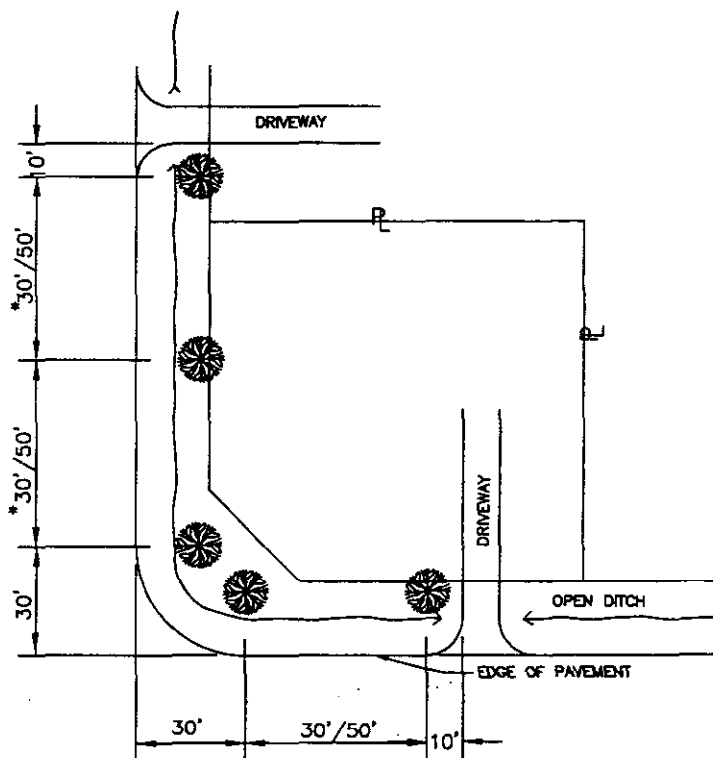
TREE LOCATIONS
CLOSED SECTION ROADS

STANDARD NO. MC-700.01



PROFILE VIEW

NO SCALE



PLAN VIEW

NO SCALE

NOTES

1. THE DIMENSIONS SHOWN HERE ARE TYPICAL AND MAY BE MODIFIED IN SPECIFIC SITUATIONS BY THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.
2. TREES ARE TO BE LOCATED WITH THE FOLLOWING MINIMUM CLEARANCES:
 - a. 5' FROM WATER MAIN
 - b. 5' FROM GAS BOX
 - c. 5' FROM INLET OR MH
 - d. 10' FROM FIRE HYDRANT
 - e. 15' FROM STREET LIGHT
- *3. MINOR TREE SPACING 30' ($\pm 5'$) O.C. MIN.
- *4. MAJOR TREE SPACING 50' ($\pm 5'$) O.C. MIN.
- TREES TO BE PLATED UNDER STANDARD NO. MC-703.02 ARE TO BE SPACED 50' ($\pm 5'$) O.C.
5. SHADE TREES TO BE 1 1/2" MINIMUM CALIPER 10' MINIMUM HEIGHT.
6. FLOWERING TREES TO BE 1 1/2" MINIMUM CALIPER 6' MINIMUM HEIGHT.
7. SPECIES TO BE AS APPROVED BY THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.
8. SEE STANDARD NO. MC-702.01 FOR PLANTING DETAILS.
9. NO TREE IS PERMITTED IF GREENSPACE IS LESS THAN 6'.
10. NO TREE IS PERMITTED WITHIN LIMIT OF SIGHT.
11. TREE PLANTINGS (IN THE PROFILE VIEW) ARE TO BE LOCATED IN ACCORDANCE WITH THE APPROPRIATE OPEN SECTION ROADWAY STANDARD.

APPROVED

11-1-2000

DATE

DIRECTOR, BPWT

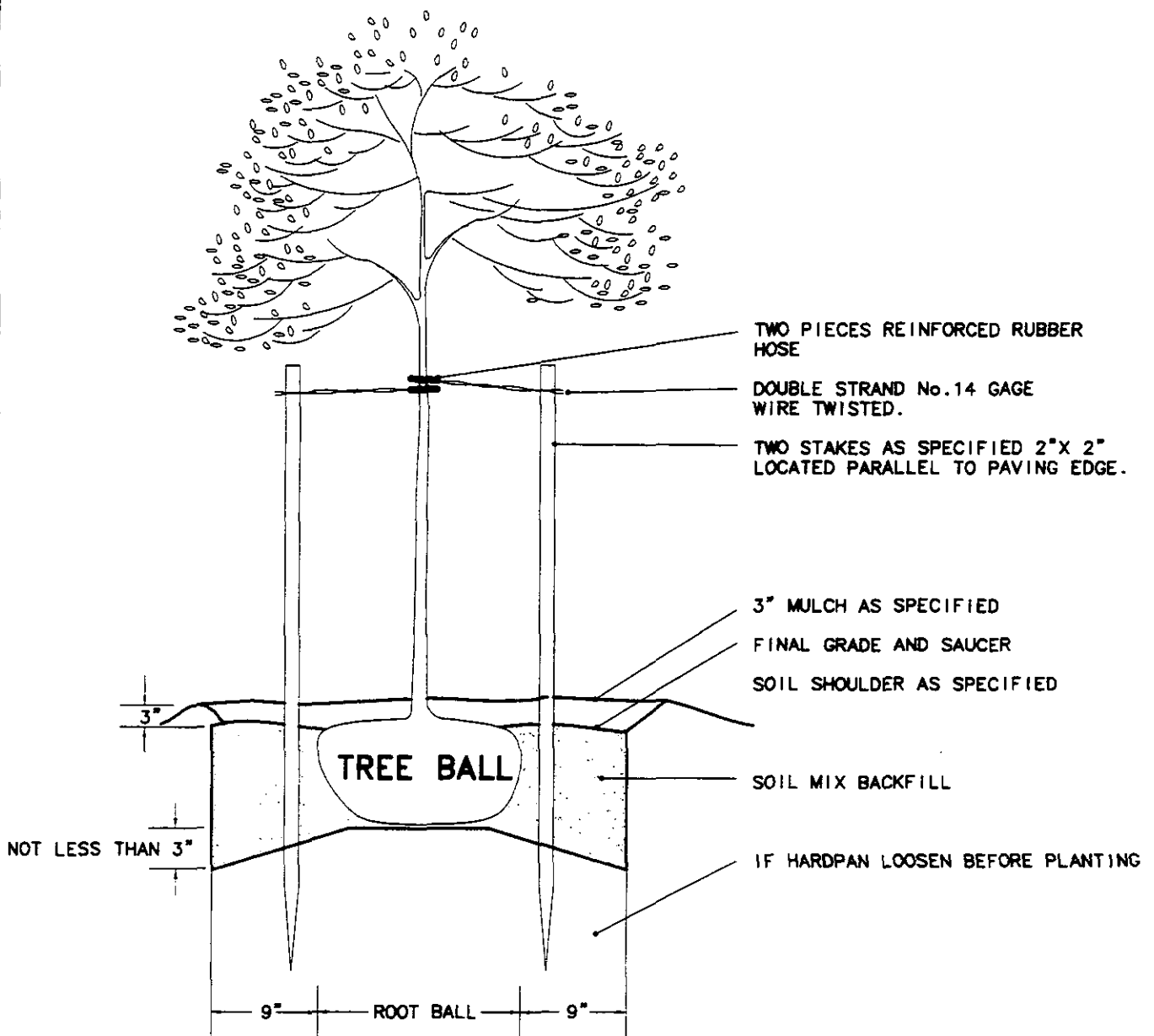
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY DEPARTMENT
OF PUBLIC WORKS AND TRANSPORTATION

TREE LOCATIONS
OPEN SECTION ROADS

STANDARD NO. MC-701.01



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APPROVED JAN 5/95
DATE

[Signature]
DIRECTOR, DEPT. OF TRANS.

[Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

TREE PLANTING DETAIL

STANDARD NO. MC-702.01

MAJOR TREES:

Acceptable major trees shall be 8' to 10' tall and have a minimum caliper of 1 1/2" measured 6" above ground level. They shall be branched at a point approximately 60% of the total height of the tree above ground. Larger size trees are acceptable but must conform to American Standards for nursery stock.

Acer saccharum (Sugar Maple)
Carpinus betulus (European Hornbeam)
Cladrastis lutea (Yellowwood)
Fagus sylvatica (European Beech)
Ginkgo biloba (Male Grafted Ginkgo)
Fraxinus Pennsylvanica Marshall (Marshall Seedless Ash)
Gleditsia triacanthos inermis (Thornless Honeylocust)
Quercus alba (White Oak)
Quercus borealis (Red Oak)
Quercus phellos (Willow Oak)
Tilia cordata (Little Leaf Linden)
Tilia tomentosa (Silver Linden)
Zelkova serrata (Village Green Zelkova)

MINOR TREES:


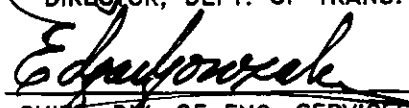
Acceptable major trees shall be a minimum of 6' tall and have a minimum caliper of 3/4" measured 6" above ground level. They shall be branched at a point approximately 60% of the total height of the tree above ground. Larger size trees are acceptable but must conform to American Standards for nursery stock.

Acer campestre (Hedge Maple)
Acer ginnala (Amur Maple)
Carpinus caroliniana (American Hornbeam)
Cercis canadensis (Redbud)
Cornus florida (White Flowering Dogwood)
Cornus florida rubra (Red Flowering Dogwood)
Cornus kousa (Kousa Dogwood)
Crataegus phaenopyrum (Washington Hawthorn)
Crataegus mollis (Downey Hawthorn)
Koelreuteria paniculata (Golden Rain-tree)
Ostrya virginiana (Ironwood)
Prunus serrulata 'Kwanzan' (Kwanzan Double Pink Flowering Cherry)
Prunus yodensis (Yoshino Cherry-White)
Pyrus calleryana (Callery Pear-Aristocrat Pear)
Pyrus calleryana (Callery Pear-Redspire Pear)
Sophora japonica (Chinese Scholartree)

OTHER SPECIES:

Considered by request.

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APPROVED <u>JAN 5 / 95</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
 DIRECTOR, DEPT. OF TRANS.		APPROVED
 CHIEF, DIV. OF ENG. SERVICES		TREE VARIETY LIST
		STANDARD NO. MC-703.01

THESE TREE SPECIES ARE INTENDED FOR USE WITH THOSE OPEN SECTION ROADWAY STANDARDS WITH SIDEWALKS (AND BIKEPATHS, AS APPROPRIATE). THE NUMBERS OF THOSE SPECIFIC STANDARDS ARE MC-210.05, MC-211.03, MC-212.04, MC-212.05, MC-213.04, AND MC-217.04.

APPROVED TREE SPECIES LIST

Acceptable trees shall have a minimum caliper of 1 1/2" measured six inches (6") above ground level. They shall be branched a minimum of five feet above ground. Larger size trees are acceptable but must conform to American Standards for Nursery Stock. Trees designated for a specific roadway section may be planted in another roadway section provided a root barrier is installed as needed to protect sidewalks and paths.

TERTIARY ROADWAY

Koelreuteria paniculata	(Golden Rain Tree)	Quercus coccinea	(Scarlet Oak)
Pyrus calleryana "Aristocrat"	(Aristocrat Pear)	Quercus prinus	(Chestnut Oak)
Pyrus calleryana "Redspire"	(Redspire Pear)	Tilia tomentosa	(Silver Linden)
Sophora japonica	(Scholartree)	Tilia cordata	(Little Leaf Linden)
Ginkgo biloba	(Ginkgo - male)		

SECONDARY ROADWAY

Koelreuteria paniculata	(Golden Rain Tree)	Nyssa sylvatica	(Blackgum)
Pyrus calleryana "Aristocrat"	(Aristocrat Pear)	Quercus prinus	(Chestnut Oak)
Pyrus calleryana "Redspire"	(Redspire Pear)	Quercus coccinea	(Scarlet Oak)
Sophora japonica	(Scholartree)	Tilia cordata	(Little Leaf Linden)
Tilia tomentosa	(Silver Linden)		
Ginkgo biloba	(Ginkgo - male)		

PRIMARY ROADWAY

Acer nigrum	(Black Maple)	Celtis occidentalis	(Hackberry)
Acer saccharum	(Sugar Maple)	Ginkgo biloba	(Ginkgo - male)
Fraxinus pennsylvanica	(Green Ash)	Nyssa sylvatica	(Blackgum)
Koelreuteria paniculata	(Golden Rain Tree)	Platanus x acerifolia	(London Planetree)
Pyrus calleryana "Redspire"	(Redspire Pear)	Quercus acutissima	(Saw Toothed Oak)
Quercus coccinea	(Scarlet Oak)	Quercus prinus	(Chestnut Oak)
Quercus rubra	(Northern Red Oak)	Quercus shumardii	(Shumard Oak)
Pyrus calleryana "Aristocrat"	(Aristocrat Pear)	Tilia tomentosa	(Silver Linden)
Sophora japonica	(Scholartree)	Tilia cordata	(Little Leaf Linden)
Ulmus hybrids	(Hybrid Elms)	Zelkova serrata	(Japanese Zelkova)

ARTERIAL ROADWAY

Gleditsia triacanthos var. inermis	(Thornless Honeylocust)	Ginkgo biloba	(Ginkgo - male)
Quercus phellos	(Willow Oak)	Quercus coccinea	(Scarlet Oak)
Quercus rubra	(Northern Red Oak)	Quercus prinus	(Chestnut Oak)
Tilia tomentosa	(Silver Linden)	Tilia cordata	(Little Leaf Linden)

APPROVED 11 July 2000

DATE

DIRECTOR, DPWT

CHIEF, DIV. OF ENG. SERVICES

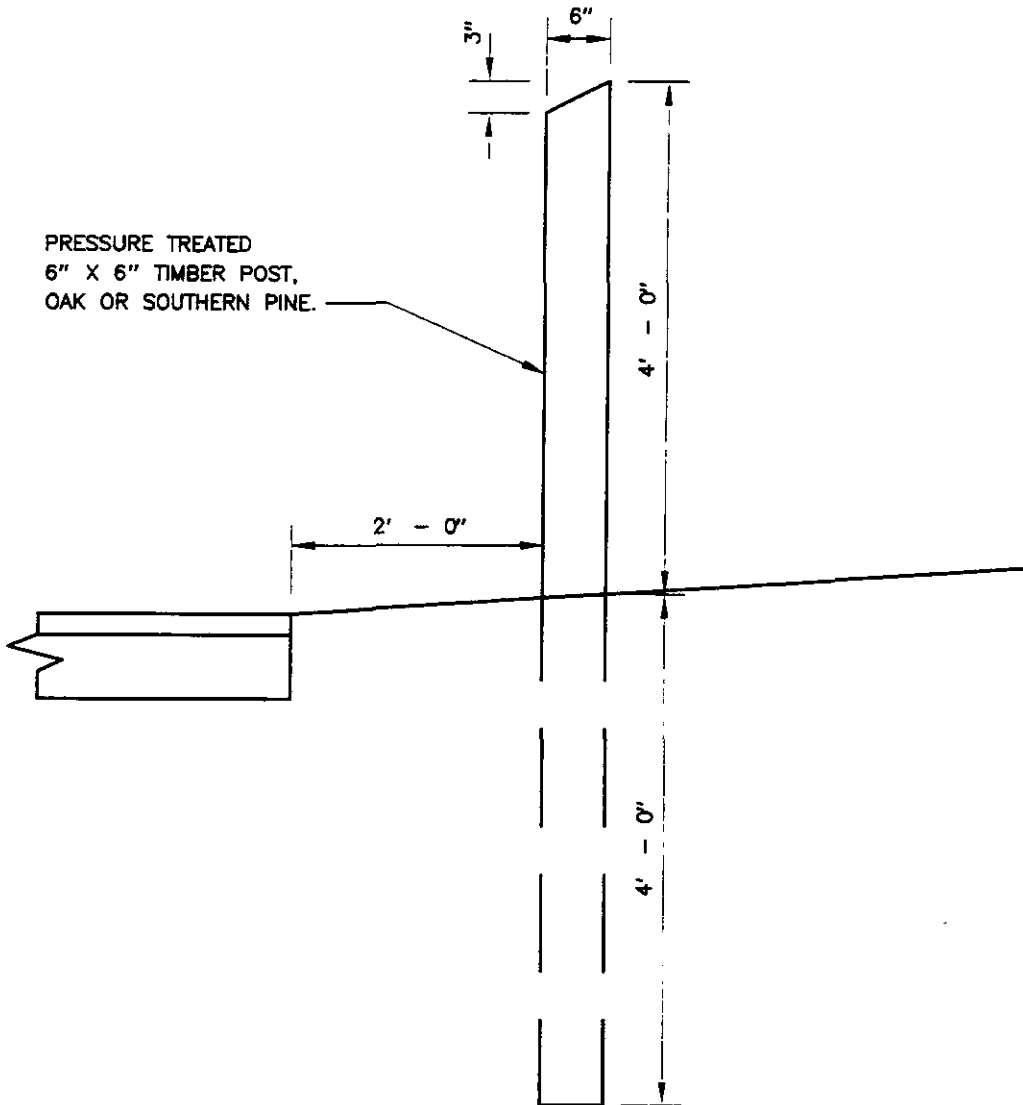
REVISED

MONTGOMERY COUNTY DEPARTMENT
OF PUBLIC WORKS AND TRANSPORTATION

APPROVED
TREE SPECIES LIST

STANDARD NO. MC-703.02

PRESSURE TREATED
6" X 6" TIMBER POST,
OAK OR SOUTHERN PINE.



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. THIS STANDARD IS INTENDED TO BE USED FOR REPLACEMENT OF EXISTING WOODEN POSTS.
3. BARRICADE POST IS TO BE PLACED IN AN AUGERED HOLE SPACED 5 FEET ON CENTER.
4. REFLECTORIZED METAL PLATE TO BE FASTENED 6 INCHES BELOW THE TOP FACE (FRONT SIDE) OF THE POST (4" MIN. WIDTH, 70 SQ. IN. MINIMUM AREA) USING GALVANIZED SCREWS.

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APPROVED JAN 5 / 95
DATE

[Signature]
DIRECTOR, DEPT. OF TRANS.

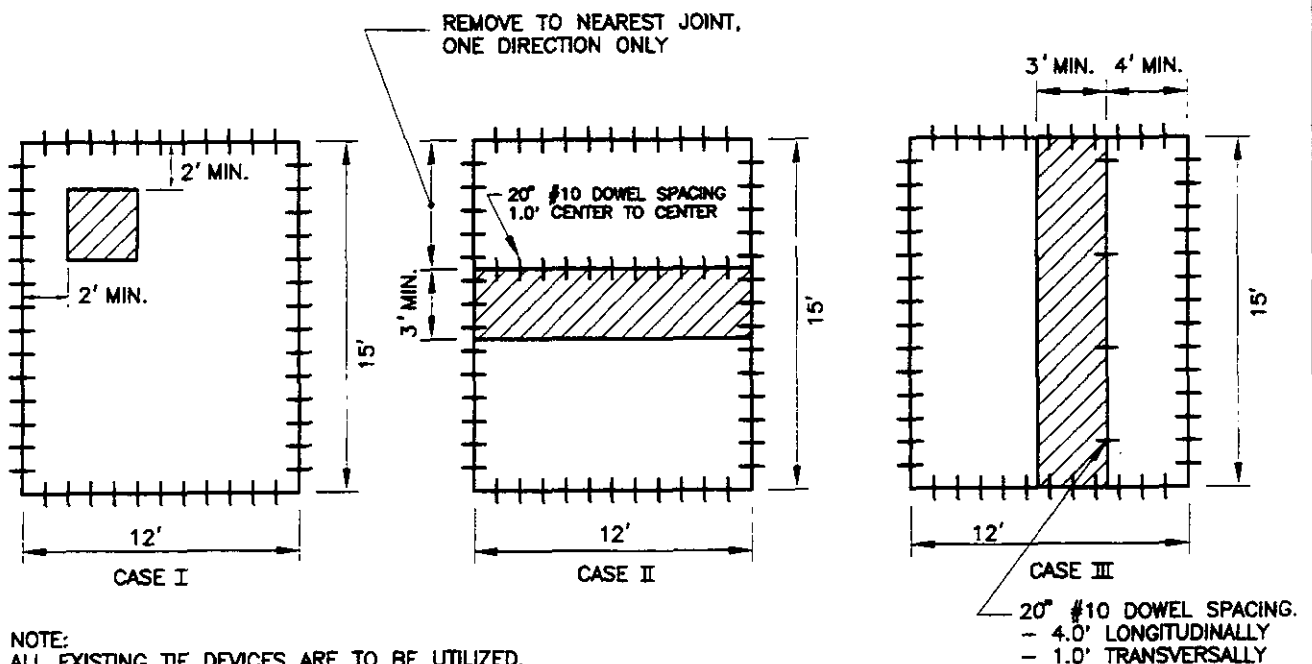
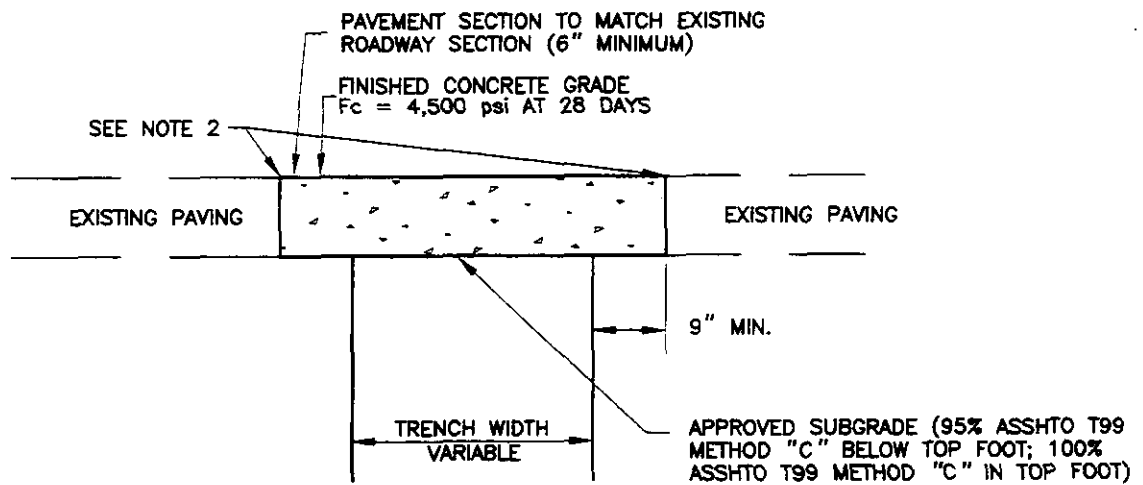
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CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

BARRICADE POST

STANDARD NO. MC-800.01



GENERAL NOTES

1. REFER TO M.C.D.O.T. UTILITY PATCH SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. EXISTING PAVEMENT MUST BE SAW CUT FULL DEPTH PRIOR TO EXCAVATION.
3. IF THE CONCRETE ROADWAY IS OVERLAYED WITH BITUMINOUS CONCRETE, A BITUMINOUS CONCRETE SURFACE COURSE SHALL BE PLACED EQUAL IN THICKNESS TO THE EXISTING BITUMINOUS CONCRETE OVERLAY.
4. SEE CASES 1, 2, AND 3 FOR JOINT PATTERN.

APPROVED JAN 5/96
DATE

Leslie M. Root
DIRECTOR, DEPT. OF TRANS.

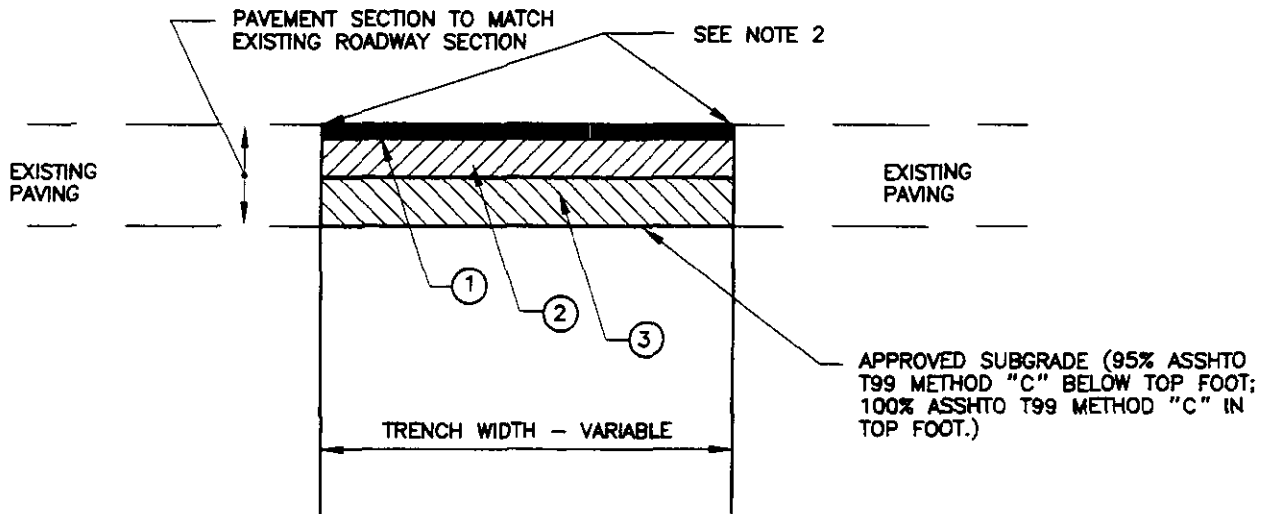
Edmund M. Root
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

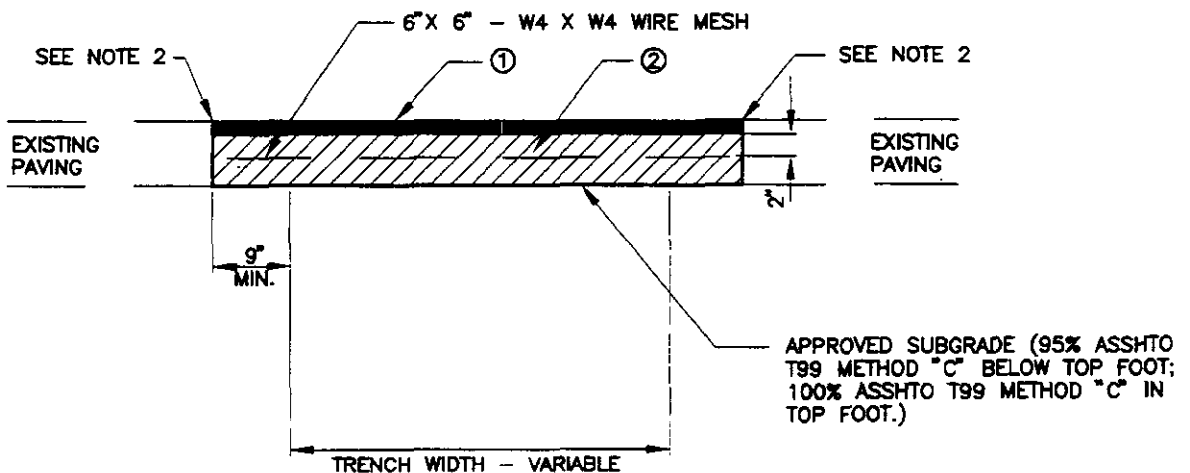
UTILITY PATCH
IN RIGID PAVEMENT

STANDARD NO. MC-801.01



- ① TWO - 1 1/2" BITUMINOUS CONCRETE SURFACE COURSE
- ② BITUMINOUS CONCRETE BASE COURSE SEE NOTE 3.
- ③ SUBBASE MATERIAL SEE NOTE 3

ARTERIAL ROADWAY
(OR HIGHER CLASSIFICATION)



CONCRETE OPTION

- ① 1 1/2" BITUMINOUS CONCRETE SURFACE COURSE
- ② 6" MINIMUM CONCRETE PATCH

PRIMARY ROADWAY
(OR LOWER CLASSIFICATION)

BITUMINOUS OPTION

- ① 1 1/2" BITUMINOUS CONCRETE SURFACE COURSE
- ② BITUMINOUS CONCRETE BASE COURSE SEE NOTE 3

GENERAL NOTES

1. REFER TO M.C.D.O.T. UTILITY PATCH SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. EXISTING PAVEMENT MUST BE SAW CUT FULL DEPTH PRIOR TO EXCAVATION.
3. BASE COURSE AND SUBBASE MATERIAL SHALL CONFORM TO APPROPRIATE ROADWAY CLASSIFICATION DESIGN STANDARD OR MATCH EXISTING CONDITION, WHICHEVER IS GREATER.

APPROVED JAN 5/95
DATE

Edgar J. Mader
DIRECTOR, DEPT. OF TRANS.

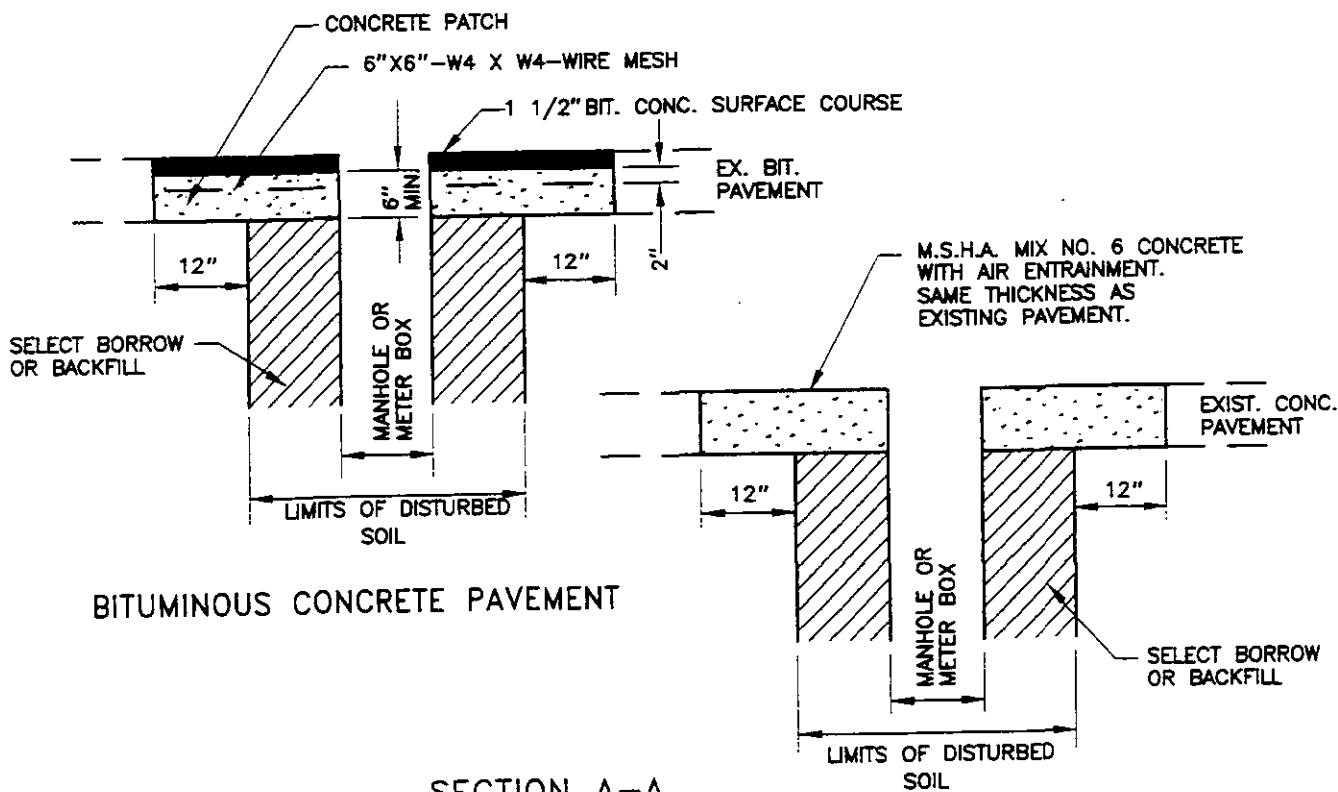
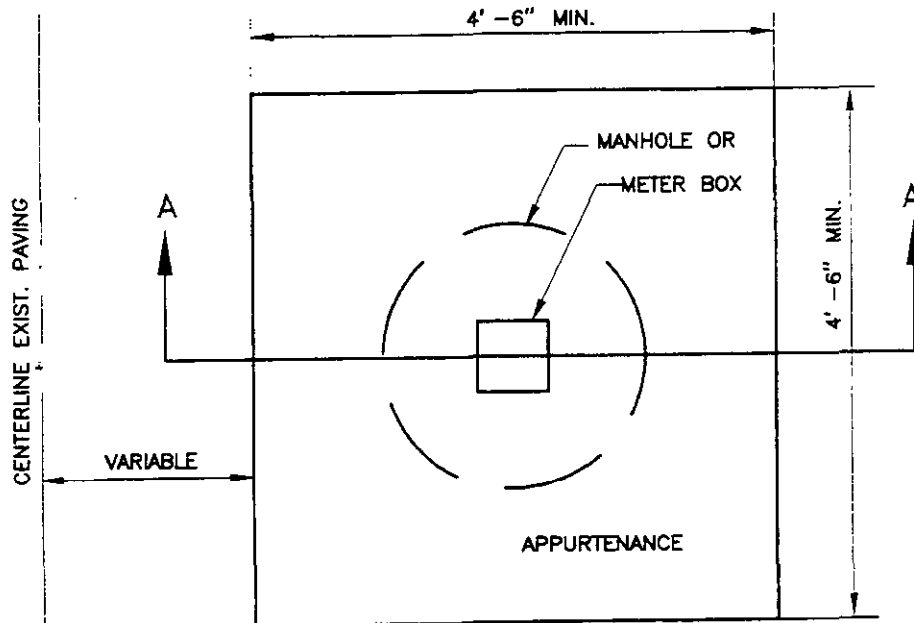
Edgar J. Mader
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

UTILITY PATCH
IN FLEXIBLE PAVEMENT

STANDARD NO. MC-801.02



SECTION A-A

CONCRETE PAVEMENT

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APPROVED JAN 5 / 96
DATE

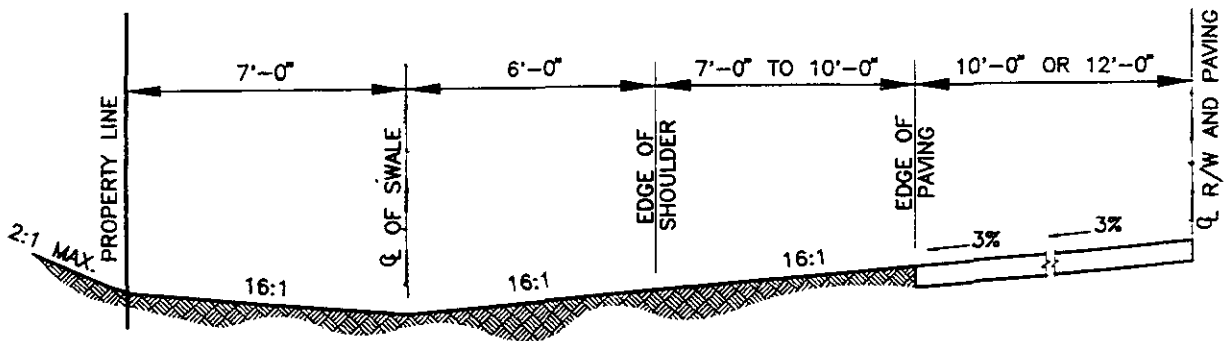
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DIRECTOR, DEPT. OF TRANS.
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CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

UTILITY PATCH
FOR APPURTENANCE ADJUSTMENT

STANDARD NO. MC-801.03



SWALE CAPACITY AT 4" DEPTH

SLOPE (%)	Q MAX. (c.f.s.)	VELOCITY(F.P.S.)
2.0	2.3	1.3
2.5	2.5	1.4
3.0	2.7	1.6
3.5	3.0	1.7
4.0	3.2	1.8
4.5	3.4	1.9
5.0	3.6	2.0
5.5	3.7	2.1
6.0	3.9	2.2
6.5	4.1	2.3
7.0	4.2	2.4
7.5	4.4	2.4
8.0	4.5	2.5
8.5	4.6	2.6
9.0	4.8	2.7
9.5	4.9	2.8
10.0	5.0	2.8

NOTE :

THIS STANDARD MAY BE USED ALONG OPEN SECTION ROADS ONLY WHERE FLOW QUANTITIES ARE EQUAL TO OR LESS THAN INDICATED, AND ONLY UPON SPECIFIC DOT APPROVAL CONSIDERING POTENTIAL FOR FLOODING. IT MAY NOT BE USED IN RESIDENTIAL AREAS.

APPROVED JAN 5/96
DATE

[Signature]
DIRECTOR, DEPT. OF TRANS.

[Signature]
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

SWALE SECTION

STANDARD NO. MC-810.01